

# ADOLESCENT MOTHERHOOD IN UGANDA Dilemmas, Health Seeking Behaviour and Coping Responses



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**Karolinska  
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The cover pictures were taken from the study district (Wakiso). They illustrate the studies' context, the research process, as well as the importance of the need for an improved road network so as to improve access to health facilities.

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**To**

**My dear wife Harriet, the children Lisa-Maria and Leon-Faustine,**

**and**

**Our dear Parents**



## ABSTRACT

**Introduction:** Maternal mortality remains one of the most daunting public health problems in resource limited settings. Maternal health services play a critical role in the improvement of sexual and reproductive health and rights, especially for adolescent mothers. Adolescence is a time of rapid change and transition that can be stressful and difficult; pregnancy can further complicate this period. In Uganda, morbidity and mortality among adolescent mothers and their children are high. In order to better understand this situation, studies (I-IV) were conducted with the following objectives: to describe experiences and problems of pregnant adolescents (I); to describe health seeking behaviour (II) and analyze coping responses (III) of adolescents during pregnancy, delivery and early motherhood; and to compare health seeking practices of adolescents and adult mothers during pregnancy and early motherhood (IV).

**Methods:** Qualitative (I-III) and quantitative (IV) studies were carried out in Wakiso district, Uganda. In study I, six focus group discussions (FGDs) were held with adolescent mothers and pregnant adolescents, and six key informant interviews (KIIs) were conducted with community leaders, persons in-charge of health units, and traditional birth attendants. In study II, 13 FGDs were conducted with married pregnant adolescents (5), unmarried pregnant adolescents (3) and married or unmarried adolescents with children (5). Semi-structured interviews were held with six KIs who were in-charge of maternity units. In study III we prospectively followed 24 pregnant adolescents (married and unmarried). Qualitative interviews about their experiences and coping responses were conducted at six months of pregnancy, one week post partum and at six months after delivery. All qualitative interviews and FGDs were tape-recorded. Content analysis (I-II) and narrative analysis (III) were done. In study IV, we conducted a cross sectional study in which 762 women (442 adolescents and 320 adults) were interviewed using a structured questionnaire. We assessed odds ratios (with 95% CI) for health care seeking during antenatal and postnatal periods, comparing adolescents to adult first-time mothers.

**Results:** In study I, results revealed that pregnant adolescents faced domestic physical violence. Furthermore, they were psychologically violated by parents and partners as well as the community. Pregnant adolescents were treated inhumanely, overworked with household chores and had inadequate food to eat. Adolescents experienced stigma and, as a result, some carried out unsafe abortions. Both KIs and FGDs revealed that health workers were rude and unsympathetic to pregnant adolescents, which contributed to delays in seeking healthcare. Two main themes emerged in study II; 'feeling exposed and powerless', and 'seeking safety and empathy'. The categories identified in the first theme were "the dilemma of becoming an adolescent mother" and "lack of decision making power". In the second theme the following categories were identified: "cultural practices and beliefs about birth", "expectations and experiences", "transport, a key determinant to health seeking", and "dealing with constraints". Adolescents felt exposed and powerless due to the dilemma of early motherhood and lack of decision-making power. The adolescent mothers seemed to be in continuous quest for safety and empathy. In study III, two narrative types and one narrative case emerged from the data: 'dealing with problems' (DWP), 'avoidance and shame' (AS) and 'violence and grief' (VG). The DWP type was characterized by wanting to solve her problems e.g. seeking healthcare, social support or initiating innovative ways to earn a living. Married adolescents seemed to cope better. The AS type was more resigned and helpless, avoiding realities, while the VG case was in crisis reaction and grief, and did not see any future. The first narrative type can be classified as 'problem-focused coping' and the last two narrative types as 'emotion-focused coping'. Lastly, study IV revealed that adolescent mothers were significantly more disadvantaged in terms of healthcare seeking for reproductive health services and faced more challenges during pregnancy and early motherhood compared to adult mothers. Adolescent mothers were more likely to have dropped out of school due to pregnancy (OR=3.61, 95% CI: 2.40-5.44), less likely to earn a salary (OR=0.43, 95% CI: 0.24-0.76), and less likely to attend antenatal care (OR=1.52, 95% CI: 1.12-2.07) compared to adult mothers. Adolescents were also more likely to experience violence from parents (OR=2.07, 95% CI: 1.39-3.08) and to be stigmatized by the community (CI=1.58, 95% CI: 1.09-2.59). In early motherhood, adolescent mothers were less likely to seek second and third vaccine doses for their infants [Polio2

(OR=0.73, 95% CI: 0.55-0.98), Polio3 (OR=0.70: 95% CI: 0.51-0.95), DPT2 (OR=0.71, 95% CI: 0.53-0.96), DPT3 (OR=0.68, 95% CI: 0.50-0.92)] compared to adult mothers.

**Conclusions:** Pregnant adolescents often lack basic needs like shelter, food and security. They also face relational problems with families, partners and the community (**I**). In search of safety and empathy, pregnant adolescents seek healthcare both in the modern and the traditional health sectors. They are in dilemma as they feel ashamed to meet their peers and also fear to visit health facilities (**II**). Married adolescents or those in committed relationships seem to cope better (problem-focused) with stressors during pregnancy and early motherhood than unmarried adolescents (**III**). Adolescents show poorer health seeking behaviour for themselves and their children, and increased community stigmatization and violence compared to adult mothers. This suggests bigger challenges to the adolescent mothers in terms of social support (**IV**). Adolescent friendly interventions such as pregnancy groups targeting pregnant adolescents with information of pregnancy, delivery and early childhood care could be introduced and implemented to improve adolescent mothers' health and that of their infants.

**Key words:** Adolescent, motherhood, health seeking behaviour, coping responses, qualitative, narratives, Uganda.



## LIST OF PUBLICATIONS

- I. **Atuyambe L.** Mirembe F, Johansson A, Kirumira EK, Faxelid E. Experiences of pregnant adolescents - voices from Wakiso district, Uganda. *Afr Health Sci*, 2005. 5(4): p. 304-9.
- II. **Atuyambe L.** Mirembe F, Kirumira EK, Johansson A, Faxelid E. 'Seeking Safety and Empathy: Adolescent health seeking behaviour during pregnancy and early motherhood in central Uganda' (**Accepted** for publication in on 25-10-2008 in *Journal of Adolescence*)
- III. **Atuyambe L.** Faxelid E, Mirembe F, Kirumira EK, Johansson A. Coping responses during pregnancy and early motherhood among adolescents in central Uganda (**Accepted** for publication on 05-06-2008 in UP Manila Journal *The Philippine Health Sciences Journal*)
- IV. **Atuyambe L.** Mirembe F, Tumwesigye NM, Johansson A, Kirumira EK, Faxelid E. Adolescent and adult first-time mothers' health seeking practices during pregnancy and early motherhood in Wakiso district, central Uganda (**Accepted** with minor revisions on 22-10-2008 in *BMC Reproductive Health*)

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## ACRONYMS AND ABBREVIATIONS

AFRICLEN	African Clinical Epidemiology Network
ANC	Antenatal Care
AS	Avoidance and Shame
BCG	Bacillus Calmette-Guérin, an inactive strain of tubercle bacilli, used as a vaccine against tuberculosis in many countries
CDC	Centers for Disease Control and Prevention
CI	Confidence Interval
COLs	Community Opinion Leaders
CMR	Child Mortality Rate
DHO	District Health Officer
DHV	District Health Visitor
DPT	diphtheria-pertussis-tetanus (diphtheria and tetanus toxoids and pertussis vaccine).
DWP	Dealing With Problems
FGD	Focus Group Discussion
GDP	Gross Domestic Product
HC	Health Center
HICs	High Income Countries
HIV/AIDS	Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome
HSB	Health Seeking Behaviour
HSSP	Health Sector Strategic Plan
HW	Health Worker
ICPD	International Conference on Population and Development
IDI	In-depth Interviews
IGA	Income Generating Activity
IMF	International Monetary Fund
IMR	Infant Mortality Rate
INCLEN	International Clinical Epidemiology Network
IPH	Institute of Public Health
KII	Key Informant Interviews
KIs	Key Informants
LICs	Low Income Countries
MDGs	Millennium Development Goals
MMR	Maternal Mortality Ratio
MoH	Ministry of Health
MPH	Master of Public Health
NHP	National Health Policy
NHS	National Health System
OR	Odds Ratio
PEAP	Poverty Eradication Action Plan
PHP	Private Health Practitioners
PHSWOW	Public Health Schools Without Walls
PI	Principal Investigator

PNC	Post Natal Care
PNFP	Private-not-for-profit organizations
PPS	Probability Proportional to Size
SPH	School of Public Health
SRH	Sexual and Reproductive Health
STDs	Sexually Transmitted Diseases
STIs	Sexually Transmitted Infections
SYFA	Save Youth From AIDS
TCMP	Traditional and Complementary Medicine Practitioners
TEPHINET	Training Programs in Epidemiology and Public Health Interventions Network
TFR	Total Fertility Rate
UBOS	Uganda Bureau of Statistics
UDHS	Uganda Demographic and Health Survey
UNCST	Uganda National Council for Science and Technology
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
VVF	Vaginal Vesicle Fistula
WHO	World Health Organization
YFS	Youth-friendly Services

## DEFINITIONS

Adolescent	Young people aged 10-19 years (WHO, 2002).
Approach coping	Action-based coping involves dealing with a problem that is causing stress.
Avoidance coping	Emotion-based coping skills reduce the symptoms of stress without addressing the source of the stress.
Coping	Refers to thoughts and behaviours that people use to manage the internal and external demands of situations that are appraised as stressful (Folkman and Lazarus 1980).
Early motherhood	Period from delivery till one year.
Gender	Refers to the <i>socially constructed</i> roles, behaviours, activities, and attributes that a given society <i>considers appropriate</i> for men and women ( <a href="http://www.who.int/gender/whatisgender/en/index.html">http://www.who.int/gender/whatisgender/en/index.html</a> ).
Health seeking behaviour	Refers to any activity undertaken by individuals, who perceive themselves to have a health problem or to be ill for the purpose of finding an appropriate remedy.
Motherhood	The state of being a mother (pregnancy, delivery, postpartum period).
Reproductive Health	A state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity in all matters relating to the reproductive system, to its functions and processes (UNFPA 1998).
Skilled birth attendant	Refers to people with midwifery skills who have been trained for proficiency in the skills necessary to provide competent care during pregnancy and childbirth.
Stigma	Refers to the phenomenon whereby an individual with an attribute, which is deeply discredited by his/her society, is rejected as a result of the attribute.
Stressor	Is an environmental event or stimulus that threatens an organism that leads to a coping response, which is any response, made by an organism to avoid, escape from or minimize an aversive stimulus (Gazzaniga MS and Heatherton TF 2003).
Young adolescents	Young women aged 10-14 (WHO 2004).

## PREFACE

The journey of my life into adolescent health was inspired by His Excellency Professor Gilbert B. Bukenya – the current Vice President of the Republic of Uganda and former Director of the then Institute of Public Health (IPH) currently School of Public Health (SPH) and dean Faculty of Medicine. This was right after I completed my bachelors degree at Makerere University in 1994. I was involved in a project funded by UNICEF known as *Save Youth From AIDS* (SYFA) where Professor Bukenya was the principal investigator. During implementation, I had the opportunity to attend several coordination and training meetings with UNICEF under the leadership of the late Dr. Livingston Byarugaba. I worked with colleagues Dr. Nakakeeto M. Kijjambu (Paediatrician) and Dr. Grace Nakasi (Child and adolescent Psychiatrist). Interestingly this was in Mpigi district from which Wakiso district (my PhD research site) was created in later years. At that time I was the only social scientist at the Institute and certainly the second or third in the entire Faculty of Medicine. I was also involved in teaching undergraduate medical students during the community clerkship, where students spent 6 weeks in the community. I took keen interest in supervising student projects and engraving social science skills into their work.

When I started my two-year Masters in Public Health (MPH) which was modeled on the Public Health Schools Without Walls (PHSWOW) concept, I got closer to the community and to adolescent health research. Under this training we spent approximately 75 percent of the time in the field (district of attachment) and we ‘learned by doing’. We were required to conduct four research projects and one Dissertation in order to enhance our competencies in the different public health tracks. I benefited greatly from Professor Mark White who was then at the SPH and is currently working at the Centers for Disease Control and Prevention (CDC) Atlanta Georgia-USA. My then field supervisor Dr. George Bagambisa, now Assistant Commissioner, Planning in the Ugandan Ministry of Health, gave me good grounding in understanding both in-school and out-of-school adolescents’ health experiences. As a result of this total exposure, I conducted a large study for my MPH thesis, which involved both qualitative and quantitative methods of data collection. I compared the health seeking behaviour for Sexually Transmitted Diseases (STDs) among the in- and out-of-school adolescents in Rakai district, Uganda. This training also gave me international exposure since our short studies were disseminated at International conferences such as International Clinical Epidemiology Network (INCLIN), Training Programs in Epidemiology and Public Health Interventions Network (TEPHINET), African Clinical Epidemiology Network (AFRICLEN), to mention but a few.

After completing my MPH, I had the possibility to participate in a number of research projects including one with Dr. Tumwesigye Nazarius called the *Pearl Project* (Program for Enhancing Adolescent Reproductive Life in Uganda) funded by UNFPA. I also worked on an adolescent project with Professor Edward Kirumira, then Head of the Department of Sociology, now Dean of the faculty of Social Sciences funded by the Rockefeller foundation. This project which looked at life skills, sexual maturation and sanitation in primary schools was a good eye opener. In fact, we published a book



entitled *Life skills, sexual maturation and sanitation. What's (not)happening in our schools. An exploratory study in Uganda* to which I contributed a book chapter. This illuminated many of the problems of the girl child for me.

But the most significant program was the one with Professor Florence Mirembe, also funded by UNFPA, where I worked very closely in admiration of her style of work and the depth of her analysis of the reproductive health issues in Uganda. This was a country-wide evaluation. It was at this point that I made the decision to concretise plans for my PhD studies. Professor Fred Wabwire-Mangen then director of IPH always encouraged me and gave me brochures for scholarships. Fortunately, I again got the opportunity under Professor Mirembe to participate in her reproductive health sub-program under the Sida /SAREC Makerere University PhD training which funded this study. Here I met Professors Staffan Bergström, Elisabeth Faxelid and Annika Johansson who have walked me stepwise to the successful end.



# 1 INTRODUCTION AND BACKGROUND

Maternal mortality remains one of the most daunting public health problems in resource limited settings, and reduction in maternal mortality is number five of the Millennium Development Goals (MDGs) [1, 2]. This goal will not be met unless all countries create national maternal and child health services with universal access [3]. Pregnancy and childbirth are still the leading causes of death and disease in women of reproductive age in low income countries (LICs). Improving maternal health is inextricably linked with the promotion of gender equality and women's empowerment (MDG-3) [4]. This can be achieved through policies and programs which build women's capabilities, improve their access to economic and political opportunity, and guarantee their safety. Educating girls improves the use of health services, reduces gender inequality and empowers women [5, 6]. Long-term and sustained improvements in women's health require rectification of the inequities and disadvantages that women and girls face in education and economic opportunity. Gender equity and social transformation are likely to be achieved when men recognize that the lives of men and women are interdependent and that the empowerment of women benefits everyone [7]. Therefore MDGs 3 (promote gender equality and empower women) and MGD 5 (improve maternal health) ought to be promoted side-by-side.

Globally, over half a million women die each year from complications of pregnancy and childbirth and an estimate of 10 million experience injuries, infections, diseases or disability that cause lifelong suffering. Almost half of these women are from sub-Saharan Africa. Most maternal deaths occur during childbirth yet the presence of trained medical staff could greatly reduce this number [8]. Maternal health services have a potentially critical role in the improvement of sexual and reproductive health. The use of health services is related to the availability, quality and cost of services as well as the social structures, health beliefs and personal characteristics of the users [9]. Adolescents are frequently reluctant to seek health services for sexual and reproductive health. Included among the many barriers are restrictive laws and policies, judgmental health workers, lack of supplies, equipment, materials and private workspace, and a lack of training for and in understanding of adolescent reproductive needs [10-12].

At the International Conference on Population and Development (ICPD) held in Cairo in 1994, governments from around the world endorsed the need to promote and protect the right of adolescents to reproductive health information and care [13, 14]. However, the situation in many countries may not reflect this recognition. In some low income countries where fertility rates are high, teenage pregnancy and early marriage are common. The proportion of teenage girls who are mothers or currently pregnant is highest in sub-Saharan Africa (20-40%) [8, 15]. As a result, unsafe abortion and complications of pregnancy and childbirth are the leading cause of death among women aged 15-19 in LICs [8, 16]. Compared with adult women, adolescent mothers are at increased risk of poor maternal and infant outcomes, particularly maternal and infant death or having an infant who is low-birthweight [17-19].

Adolescence is a time of rapid changes and transition that can be stressful and difficult, with adolescents drawing upon all their resources to cope. Adolescents are socially expected to adapt to a series of normative changes and they are faced with increased expectations to act in what society defines as a more mature manner. They also develop more self-consciousness indicated in their self assessment of how others see them [20].

In Uganda, 25 percent of adolescents 13-19 years have begun childbearing and 19 percent of them already have a child [21]. Although adolescent pregnancy in Uganda has been steadily declining (41% in 1995, 31% in 2000, 25% 2006), it is still high [21]. This poses a challenge to

health service providers to understand how adolescents cope with pregnancy and early motherhood. Adolescent pregnancy is singled out because of its association with higher morbidity and mortality for the mother and child as well as the psycho-social consequences involved [22-24].

## **1.1 ADOLESCENT SEXUAL AND REPRODUCTIVE HEALTH SITUATION**

Adolescence (age 10-19) is a transition period from childhood to adulthood [25] that includes sexual experimentation. Adolescents might consider themselves grown up and therefore mature enough to have sex [26-28]. They often lack knowledge about the consequences of unprotected sex such as unwanted pregnancy, the outcome of unsafe abortion and sexually transmitted infections, including HIV/AIDS [29-31]. In many cases they do not reveal their reproductive health problems and tend not to use the healthcare services they actually need [32]. This may be due to inadequate information, limited access to financial resources or negative attitudes of health workers [33, 34].

In Uganda, girls become sexually active earlier than boys. In 2006, the median age of first sexual relationship for men aged 25 to 54 years was 18.1 years compared with 16.6 years for women [21]. This increases the risk of early pregnancies and marriages and consequently adolescent motherhood. Early sexual activities among adolescents might lead to unwanted early pregnancies resulting in unsafe abortion, pregnancy and/or delivery complications [35, 36].

In Uganda, the national adolescent health policy aims to streamline adolescent health concerns into the national development process in order to improve quality of life and standard of living [37]. The specific objectives of the policy include providing reference guidelines for addressing adolescent concerns and promoting dissemination of information concerning adolescent health in order to stimulate positive changes among individuals, community leaders and service providers. The adolescent health policy points out that the proportion of mothers below 20 years who deliver in health facilities should increase from 48 to 80 percent and that pregnant schoolgirls should continue school after delivery [37]. This is in line with the Ministry of Health vision to achieve the target in the Poverty Eradication Action Plan (PEAP) to reduce maternal mortality ratio by 30 percent (from 505 to 354/100,000 live births) by 2015. The implementation strategy includes scaling up adolescent friendly services [10, 38] and increasing links with the community through the village health team mechanism [39]. It is perceived that this would, in the long run, improve sexual and reproductive health in Uganda.

Further, there is a correlation between poverty and the incidence of adolescent childbearing. In Uganda the percentage of adolescents who have begun childbearing in the poorest household is 41 percent compared with only 16 percent in the wealthiest households [21]. There is evidence that pregnant adolescents are less socially competent and less proficient in problem solving than adult pregnant women. Passino et al (1993) found that adolescent mothers displayed higher levels of parenting stress and were less responsive and sensitive in interactions with their infants than adult mothers [40]. A way of addressing this is to discourage adolescents from early pregnancy [41]. There is a need for health services to target this subgroup of mothers to provide targeted services, including parenting support [42]. It is equally important to note that girls themselves may not want to return to school after delivery since the school environment and facilities are often present less-than-ideal conditions for a young mother to study while caring for an infant [43].

One of the goals of the Uganda Health Sector Strategic Plan (HSSP) II 2005/06 -2009/10 is to contribute towards the reduction of maternal, neonatal and under-five mortality. This is in line

with the PEAP targets and MDGs 4 and 5. Despite the achievements of the HSSP 1, the unmet need for family planning stands at 40.6 percent (33.8% for adolescents 15-19 years) [21] while the unmet need for emergency obstetric care is 86 percent [44]. Only 41.1 percent of births take place in a health facility (public and private sector), and 42.1 percent of deliveries occur under supervision of skilled provider. The percentage of adolescent pregnancies has reduced from 44 percent to 25 percent during about 15 years but this is still unacceptably high (Table 1.1). The Total Fertility Rate remains high at 6.7 [21].

## **1.2 ADOLESCENT HEALTH SEEKING BEHAVIOUR**

Health seeking behaviour (HSB) refers to any activity undertaken by individuals, who perceive themselves to have a health problem or to be ill for the purpose of finding an appropriate remedy [45]. This is, therefore, a sequence of remedial actions that individuals undertake to rectify perceived illness. It is initiated with symptom definition upon which a strategy for treatment is devised. Adolescents are generally believed to be healthy because death rates for this age group are lower than those of children or older people. However, there are many interrelated reasons why there is need to pay attention to the health of adolescents, especially adolescent girls to prevent current, later life and future generations' health concerns. The immense changes in emotional and cognitive functioning that take place during adolescence, heralded by puberty, have implications for healthcare that are unique to this group. In LICs, young people are less willing to seek professional help for more sensitive matters and turn more readily to friends or family whom they feel that they can trust for sexual advice [10, 46].

### **1.2.1 During pregnancy**

Antenatal care (ANC) improves some outcomes through the detection, management of, and referral for potential complications. Evidence from high income countries (HICs) suggests that adequate ANC may improve birth weight [47, 48]. Antenatal care can also assist in the prevention, identification and treatment of iron deficiency anemia in adolescent mothers [49]. This is crucial as severe anemia is linked to maternal and child mortality [50-52]. Furthermore, women who are pregnant for the first time—including most pregnant adolescents—are more susceptible than women with higher-order pregnancies to malarial parasitic infection [53], which is associated with anemia, abortion, stillbirth, premature birth and low birth weight [54]. This hampers the delivery of effective ANC screening and treatment programs, potentially contributing the high maternal morbidity and mortality [55]. It is important that adolescent HSB during pregnancy receives specific attention.

The purpose of ANC is to improve pregnancy outcomes for both the mother and the fetus. The aim of the first ANC visit is for health staff to establish rapport with the client and to collect information to evaluate the client's health status and preparedness for motherhood. The first visit offers the client the opportunity to assess the services and to form an impression about the institution [56]. It is generally considered important that antenatal care start early, preferably in the first trimester or early in the second trimester. If we value an early start to antenatal care so highly, then the needs of adolescents in early pregnancy should be taken into consideration. Research in many low and middle income countries has demonstrated that despite availability of ANC services, the antenatal care of adolescents is inadequate. Adolescents often book late for antenatal care (in the second or third trimester) or attend only once, thereby limiting the potential impact of the quality of antenatal care [55, 57-59]. Typical causes for this are financial barriers, embarrassment and attempts to hide the pregnancy [60]. There is also dissatisfaction with provider practices, such as clinic waiting times, lack of privacy and unfriendly attitudes among caregivers [54, 61]. Although there are adolescents who are glad to be pregnant (e.g. married adolescents) many of them are embarrassed and do not know what to do. A study in West Africa associated poor ANC attendance with more abortions and poor obstetric performance. A number

of factors like knowledge of the role of ANC, perceived health needs, nurse-patient relationship, economics and transport influenced attendance at ANC [62-64]. In South Africa, obtaining the ANC card was mainly viewed as important for enabling the mothers' access to public health facilities for labor and delivery [55]. Furthermore, a study done in Uganda indicates that interventions providing adolescent friendly services (ANC inclusive) improved the utilization of reproductive health services [65].

### **1.2.2 During childbirth**

Delivery services especially emergency obstetric care are critical for pregnant women if they experience pregnancy-related complications such as obstructed labor, pregnancy-induced hypertension, eclampsia or severe untreated anemia [8, 48]. Each year, nearly 70,000 adolescent girls aged 15-19 die from pregnancy-related complications, which are responsible for most of the mortality in this group [66]. Younger adolescents appear to be at especially high risk for obstructed or prolonged labor which causes higher morbidity and mortality in these younger adolescents than for women in their twenties [66, 67]. Fistula results from prolonged and obstructed labor, when the head of the baby cannot pass through the birth canal. The constant pressure of the baby's head forces a hole between the bladder and the vagina, or the rectum and the vagina. This leaves the girl or woman incontinent of urine, faeces or both. The constant wetness and smell often lead to social consequences like divorce, abandonment and enormous shame. Other adolescent-related delivery complications have been extensively described in Asia (Saudi-Arabia, India) [68, 69] and Africa (Nigeria, Ethiopia) [70, 71] and South America [72]. The main reason is that their pelvic bones and birth canal of younger adolescents are not fully developed, due to young age and, sometimes, poor nutrition status. In Uganda overall, only 41 percent of births occurred in health facilities and 58 percent took place elsewhere. Births to adolescents were more likely to take place in health facilities. For instance 49 percent of births to adolescents took place in health facilities compared to 32 percent for mothers aged 35-59 [21].

Antenatal care and the place of childbirth are related to each other. In Uganda, births to women who made four or more ANC visits were nearly four times more likely to occur in a health facility than women who did not attend ANC (56 percent versus 16 percent) [21]. The person accompanying women to the place of delivery is a measure of the support a woman receives from the family and from the community, and it is a measure of male involvement in safe motherhood. The 2006 UDHS revealed that persons accompanying adolescents to the birthplace are mainly other relatives (53%) followed by partner (34%) mother (28%) and others (15%) [21] (in some cases more than one response was given). Fortunately about 50 percent of the adolescents were attended to by skilled providers compared to 42 percent of adults [21].

According to the WHO, postpartum care especially for adolescent mothers is very important. It should encompass the prevention, early diagnosis and treatment of complications of the mother and the infant. Counseling on baby care, the promotion and support of breastfeeding, contraceptive and nutrition advice, and immunization are essential components of postpartum care [73]. Breastfeeding is important in the postpartum period. A dilemma still exists if the mother is HIV-positive because of the risk of transmission of the virus to the baby through breastfeeding. However in many LICs, the risk to the baby of replacement feeding may be high. Home visits may be of special importance for the adolescent mothers, because they often experience difficulties with their families and generally in the community [73].

### **1.2.3 Early motherhood**

Postpartum care is important both for the mother and the baby to treat complications arising from the delivery as well as to provide the mother with information about herself and the baby. In Uganda a big proportion (over 70%) of mothers, including adolescents, do not receive any

postpartum services at all [21]. George (2005) observed that first-time mothers returned home feeling unprepared to take care of themselves and their babies. They felt overwhelmed due to increased responsibility and vulnerability. This situation propelled them to seek information on motherhood, which they often got inconsistently and in fragments [74]. Incomplete information has a bearing on adolescents' and their infants' HSB. In Uganda, for instance, 46 percent of children 12 to 23 months were fully vaccinated at the time that the 2006 UDHS survey was carried out [21]. Other studies have documented that adolescents were less likely to vaccinate their children against tuberculosis, diphtheria-pertussis-tetanus and polio than older women [48].

Adolescents are quite explicit about what they want from health-care providers. They value their privacy and identity, and want to make decisions for themselves based on correct information. For adolescents to seek appropriate healthcare for themselves and their infants a number of important elements have been recommended [73]. They include the following:

- Confidentiality
- Provision of required information and services
- Accepting adolescents as they are (not moralizing or demoralizing)
- Considering and respecting adolescents' opinions about services
- Allowing adolescents' to make their own decisions
- Ensuring that adolescents' feel welcome and comfortable
- Being non-judgmental
- Provision of services at a time that adolescents are able to come.

### **1.3 POLICY FRAMEWORK IN RELATION TO ADOLESCENT HEALTH IN UGANDA**

Overall, the policy environment in Uganda favors adolescents. Among the policies in place is the National Adolescent Health Policy, which directly deals with adolescent issues and is supervised by the Ministry of Health. In this policy the components of adolescent health such as sexuality, contraception, unwanted pregnancy, unsafe abortion and care of pregnant adolescents and their infants are given prominence [37]. Furthermore, the policy objective is to reduce mortality, morbidity and fertility generally, with prenatal and maternal conditions as a priority. The National Minimum Healthcare Package includes SRH and rights where adolescent RH, essential ANC and obstetric care, family planning and violence against women are included [75]. The National Policy Guidelines and Service Standards for Reproductive Health Services targets adolescents as a special group for contraception, safe motherhood, and obstetric fistula prevention [76]. Furthermore, the National Youth Policy advocates health programs with improved provision and expanded access to youth-friendly services (YFS). It proposes the removal of all legal regulatory, structural and medical barriers to access such services [77]. YFS are also reflected in the Education Sector Policy guidelines where all schools and learning institutions are encouraged and supported to put these services in place. Emphasis is made in the policy that 'adolescent sexual and reproductive health will constitute an integral part of HIV/AIDS education targeting young people in education institutions' [78]. The Ugandan 2008 National Population Policy calls for improved health status of the population through strengthening of referral systems, the deployment of skilled human resources for RH, RH commodity security and the strengthening youth-friendly RH services [79]. To summarize, the policy framework in Uganda is conducive to adolescent health and development. The missing links are the financial and human resources to implement adolescent health activities. It is, however, important to note that controversy still exists on some aspects of contraceptive use and abortions.

### **1.3.1 Contraceptive use**

Contraception refers to a device, drug, or chemical agent that prevents conception by interfering with the normal process of ovulation, fertilization, and implantation. According to the 2006 UDHS, 45 percent of all women (married and unmarried) had ever used a contraceptive method while 19 percent of adolescents 15-19 years had ever-used contraceptives. Just over half (52%) of currently married women and 37 percent of married adolescents had ever used a contraceptive method. Figures of current-use were much lower for all women with only 19.6 percent of all women and 6.5 of adolescents 15-19 years using any contraceptive method. Overall, the contraceptive prevalence rate for Uganda is 24.4 percent [21]. A number of factors are reported to affect contraceptive use in Uganda. These include male partner participation, financial constraints, misconceptions and leadership support [80]. Uganda is predominantly Christian with a big proportion (42%) of the entire population being Catholic [81] where modern contraceptives are prohibited by doctrine and are not available at Catholic hospitals or health units. Whereas overall knowledge on modern contraceptives is high in Uganda, for some methods it is still low. Recent research among university students in Kampala revealed that only 45 percent had ever heard about emergency contraceptive pills and, of those, only seven percent had ever used them [82].

### **1.3.2 Abortions**

In medicine, an abortion is the premature exit of the products of conception (the fetus, fetal membranes, and placenta) from the uterus. It also refers to the termination of a pregnancy by the removal or expulsion of an embryo or fetus from the uterus, resulting in or caused by its death. WHO defines unsafe abortion as a procedure for terminating an unintended pregnancy carried out either by persons lacking the necessary skills or in an environment that does not conform to minimal medical standards, or both [54, 83]. An abortion can occur spontaneously due to complications during pregnancy or can be induced. Abortion, as a term, most commonly refers to the induced abortion of a human pregnancy, while spontaneous abortions are usually termed miscarriages. Abortion has a long history and has been induced by various methods including herbal abortifacients, the use of sharpened tools, physical trauma and other traditional methods. Modern medicine utilizes medications and surgical procedures to induce abortion. The legality, prevalence, and cultural views on abortion vary substantially around the world. In many parts of the world there is intense public debate over the ethical and legal aspects of abortion [84].

In Uganda, abortion is only permitted to save the life of the pregnant woman [85]. It is not permitted in cases of rape or incest, but in practice illegal abortions are common, particularly among adolescents. Sometimes young girls are impregnated by a close family friend or a classmate. Defilement of this nature is a capital offense. Section 123 of the Uganda Penal Code (cap 106) states that 'a male of any age who has sexual intercourse with a female under the age of eighteen, whether she consents or not, is guilty of defilement. It is a criminal offense carrying a maximum penalty of death by hanging' [86]. However this law is hardly ever enforced. The problem in the enforcement of this law is that the average age of marriage in Uganda is below 18 years! [21]. Many people end up settling cases out of court and seeking illegal abortions, often under unhygienic conditions assisted by unskilled providers, or using insertions and herbs [87]. Recent studies in Uganda revealed an abortion rate of 54 per 1,000 women aged 15-49 years [88, 89]. It is estimated that each year 297,000 induced abortions are performed and nearly 85,000 women are treated for complications. Consequences of abortions carried out in unsafe conditions and by unskilled practitioners burden the women, their families and the health system.



## 1.4 UGANDA – DEMOGRAPHIC AND SOCIOECONOMIC CONTEXT

The Republic of Uganda is a landlocked country in East Africa astride the equator, about 800 kilometres inland from the Indian Ocean. It lies on the north-western shores of Lake Victoria, bordered by Tanzania and Rwanda to the south, the Democratic Republic of Congo to the west, Sudan to the north, and Kenya to the east. With a land surface of just over 240,000 square kilometres, Uganda occupies most of the Lake Victoria Basin, which was formed by the geological shifts that created the Rift Valley during the Pleistocene era.

Uganda is a well-watered country. Nearly one-fifth of the total area, (44,000 km<sup>2</sup>) is open fresh water or swampland. Four of East Africa's Great Lakes--Lake Victoria, Lake Kyoga, Lake Albert, and Lake Edward--lie within Uganda or on its borders. Lake Victoria dominates the south-eastern corner of the nation, with almost one-half of its 10,200 square-kilometre area lying inside Ugandan territory. It is the second largest inland freshwater lake in the world (after Lake Superior), and it feeds the upper waters of the Nile River, which is referred to in this region as the Victoria Nile. Lake Kyoga and the surrounding basin dominate central Uganda. Uganda's equatorial climate provides plentiful sunshine, moderated by the relatively high altitude of most areas of the country. Mean annual temperatures range from about 16° C in the south-western highlands to 25° C in the northwest. Rainfall is between 800-1700 mm/year [90].

Uganda has substantial natural resources, including fertile soils, regular rainfall, and sizable mineral deposits of copper and cobalt. The country has largely untapped reserves of both crude oil and natural gas. Agriculture is the most important sector of the economy, employing over 80 percent of the work force, with coffee accounting for the bulk of export revenues. Since 1986, the government, with the support of foreign countries and international agencies, acted to rehabilitate an economy decimated during the regime of Idi Amin and subsequent civil war [90]. Although Uganda is endowed with natural resources such as arable land, forests, bodies of water and some minerals, there is widespread poverty and the standard of living is low. Absolute poverty is 31 percent, income inequality is at 0.43 (Gini coefficient). According to the Uganda Bureau of Statistics the Gross Domestic Product (GDP) per capita at the current price market is about 500 USD [91]. According the 2008/09 budget speech, the real GDP growth during the financial year 2007-08 was estimated to be 8.9 percent [92]. The inflation rate has been controlled at six percent and the budget deficit as a percent of GDP has been reduced to 11.7 percent [93]. Table 1.1 below presents key Uganda demographic, health and socioeconomic indicators. It highlights very high population growth rate, high maternal and childhood death with a big percentage of the population living below the poverty line.

**Table 1.1: Trends of selected demographic, health, social-economic indicators**

Characteristics/indicators	Years			
	1991	1995	2002	2007
<b>Population</b>				
Population (Millions)	16.7	19.3	24.4	29.6 <sup>§</sup>
Population Growth Rate (%)	2.5	2.5	3.2	3.2
<b>Health indicators</b>	<b>1991</b>	<b>1995</b>	<b>2001</b>	<b>2006</b>
Infant mortality rate (IMR) per 1,000	122	81	88	76
Child mortality rate (CMR) per 1,000	203	147	152	137
Maternal mortality ratio (MMR) per 100,000	527	506	505	435
Adolescent pregnancy rate (%)	44	41	31	25
Total fertility rate (%)	7.1	6.9	6.9	6.7
Contraceptive prevalence rate (%)	5.0	15.0	22.8	24.4
Antenatal attendance-at least once (%)	-	-	91	94
Supervised deliveries (%)	38	38	38	41
Full immunization (%)	28	47	38	46
HIV prevalence (%)	30.0	15.0	6.1	6.4
<b>Social indicators</b>	<b>1991</b>	<b>2000</b>	<b>2004</b>	<b>2006</b>
Literacy rate (%)	54	65	-	69
Literacy rate men (%)				76
Literacy rate women (%)				63
Households with access to safe water source (%)	44	54	61	68
Life expectancy	48.1	46.0	51.4*	51.0
<b>Economic indicators</b>	<b>1991</b>	<b>2002</b>	<b>2004</b>	<b>2006</b>
Population below poverty line (under US\$ 1) (%)	56	35	38	31
Government expenditure on health as a % of GDP	2.1	2.1	2.2	-

Source: [21, 44, 81, 94]; <sup>§</sup>figure projected for 2008, \*2002

## 1.5 THE UGANDA HEALTHCARE SYSTEM

The National Healthcare System (NHS) comprises of all the institutions, structures and actors whose actions have the primary purpose of achieving and sustaining good health. The boundaries of Uganda's NHS encompass the public sector, including the health services of the army, police and prisons. The private health delivery system includes private-not-for-profit organizations (PNFP), private health practitioners (PHP), traditional and complementary medicine practitioners (TCMP); and the community. The core functions of a NHS are: 1) Stewardship of the sector including policy appraisal and development; oversight of health sector activities; assuring quality, health equity and fairness in contribution towards the cost of healthcare; harnessing the contribution of other health-related sectors; ensuring that the sector is responsive to expectations of the population; and being accountable for the performance of the wider health sector. 2) Provision of preventive, health promotion, curative and rehabilitative services. 3) Policy and planning, monitoring and evaluation. 4) Mobilization of resources including human resources, health infrastructure, medicines and other health supplies, data and information, etc. The Ministry of Health initiates policy and coordinates overall sector activities and brings together stakeholders at the central, district and community level.

Table 1.2 describes the structure and level of care in terms of population in Uganda.

**Table 1.2: Structure and level of care**

<b>Level of care</b>	<b>Population served</b>
Ministry of Health and other National level Institutions	Entire country
National Referral Hospitals	28.4 Million
Regional Referral Hospitals	2 million
District Health Services (district level)	
○ General Hospital	0.5 million
Health Sub-District level	
○ Health Centre IV	Country level: 100,000
○ Health Centre III	Sub-country level: 20,000
○ Health Centre II	Parish Level: 5,000
○ Health Centre I	Village Health Team: 1,000

Source: [44]

## 1.6 RATIONALE FOR THE STUDIES

Low utilization of maternity and child health services in Uganda impacts women's and children's wellbeing [95-97]. A retrospective study of maternal deaths in 20 hospitals and 54 randomly selected health centers established that 86 percent of the mothers died within one hour of admission. Among the risk factors were adolescent pregnancy and history of abortion [98]. Unmarried adolescent mothers are more vulnerable than married ones [99]. In many cases, unmarried pregnant girls are rejected by their parents as they will have added shame and an additional burden to the family [100, 101]. In the past, these mothers were denied the opportunity to continue their education after delivery. Even though this has recently changed in Uganda, the socio-cultural circumstances still disfavor unmarried adolescent mothers. Medically, younger adolescent girls and their infants are prone to complications during pregnancy, delivery and after the postpartum period. The commonly reported complications are obstructed labor, low birth weight, still births, neonatal death, eclampsia, and, at times, fistula formation, a condition associated with a lot of stigma [102, 103]. Children born to adolescent mothers are of public health importance as they are often malnourished due to economic difficulties [104] and should be prioritized especially in early childhood.

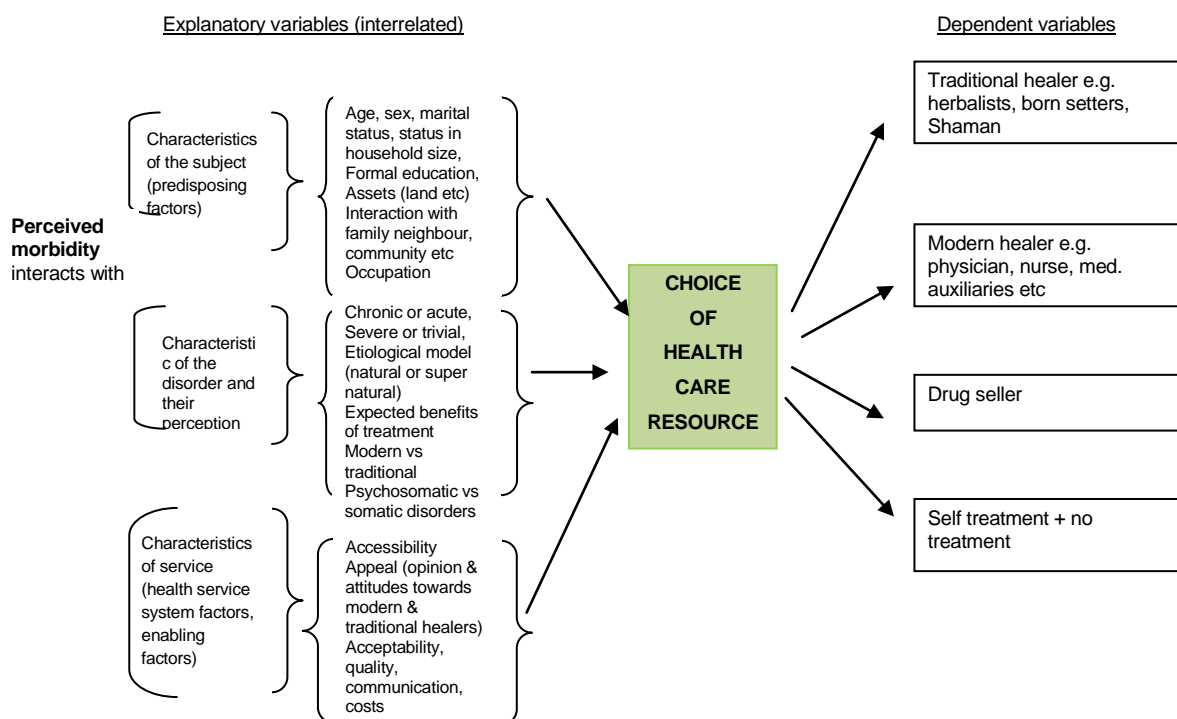
The health of women is generally a fundamental pillar for global progress. Addressing reproductive health issues is an important element in the Ugandan HSSP. In Uganda, the HSSP II stipulates that the utilization of maternal and child health services are still inadequate, mainly because of low levels of education of women and cultural practices, which include gender dynamics at household and community levels. In addition, maternal and neonatal conditions contribute highest (20.4%) to Uganda's total burden of ill health and avoidable deaths[44]. The 2006 UDHS also established that, although some improvements had been made in the area of reproductive health in the previous five years (Table 1.1), more effort was needed in order to meet the HSSP targets and the Government PEAP objectives. It is, therefore, necessary to understand adolescent HSB and coping responses during pregnancy and early motherhood. Such understanding will enable us make recommendations to stakeholders on how health service delivery for adolescent mothers should be further established and implemented.

## 1.7 THEORETICAL FRAMEWORK

Two theoretical frameworks guided this research. One advanced by Kroeger (1983) gave us the understanding of health seeking behaviour, while Moos (2002) guided our investigation of adolescent coping responses during pregnancy and early motherhood.

## Health seeking behaviour

The theoretical approach proposed by Kroeger emphasizes that perceived morbidity (e.g. pregnancy-related morbidities) interacts with a complex network of explanatory variables (characteristics of subject, disorder and service) that influence the choice and use of health services. Additional factors such as the continuing process of cultural change, which includes change of illness concepts and health behaviour also influences choice of healthcare [105]. Within this theoretical approach, demographic and contextual factors are viewed as essential influences under which pregnant adolescents' transitions to motherhood occur [106]. This theoretical approach is diagrammed below (Fig 1.1):

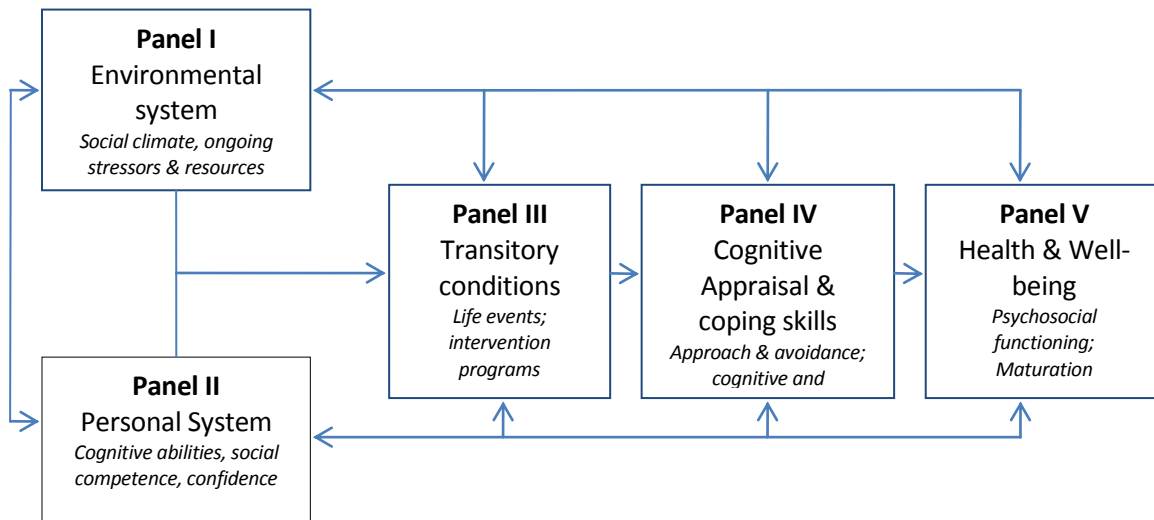


**Fig 1.1: Choice of healthcare in relation to various possible explanatory variables** (Source: [105])

## Coping responses

This study was further informed by Moos' theoretical model on the interplay between context, coping and adaptation [107]. It suggests that the environmental system, personal system and transitory conditions shape cognitive appraisal and coping skills, and consequently individuals' health and well-being. In his model, the environmental system (social climate, ongoing stressors, resources), personal system (cognitive abilities, social competencies, confidence), transitory conditions (life events), cognitive appraisal and coping skills (approach and avoidance; cognitive and behavioural), and health and well-being influence each other and are inextricably linked.

Pregnant adolescents live in a social climate which often includes family, community, and school, and are influenced by their personal systems, e.g. social competencies. The overall life event of pregnancy through delivery and early motherhood is a major stressor that mediates other stressors such as illness, violence, etc. in the environmental system. Although there are other models and frameworks [108-112], Moos' model appears to be the most suitable in analyzing coping responses for these studies (Fig 1.2).



**Fig 1.2: Moos' Model of context, coping and adaptation in adolescence** Source: [107]

This model contextualises pregnant adolescents in their social environment in a period of their life that can be characterized as unique. Adolescents experience pregnancy (a major life event) with which they cope either positively or negatively. This, in turn, impacts their health and well-being. The bi-directional arrows indicate reciprocal feedback.

Adolescents experience stress through different life events. A stressor or source of stress is an environmental event or stimulus that threatens an organism that leads to a coping response, which is any response made by an organism to avoid, escape from or minimise an aversive stimulus [113]. Folkman and Lazarus (1980) describe coping as thoughts and behaviours that people use to manage the internal and external demands of situations that are appraised as stressful [114]. Coping is a process that unfolds in the context of a situation or condition that is perceived as personally significant and as taxing or exceeding individual resources. Coping concepts are useful in explaining why some adolescents fare better than others when encountering stress in their lives. Falkman and Moskowitz (2004) suggest that coping is not a stand-alone phenomenon. It is embedded in a complex, dynamic stress process that involves the person, the environment and the relationship between them [115]; this describes and justifies the use of Moos' model.

## **2 OBJECTIVES**

### **2.1 GENERAL OBJECTIVE**

The general objective is to explore and analyze adolescents' experiences, health seeking behaviour and coping responses during pregnancy and early motherhood in Wakiso district, Uganda.

### **2.2 SPECIFIC OBJECTIVES**

- a) To describe pregnant adolescents' experiences and problems (study **I**).
- b) To describe adolescents' health-seeking behaviour during pregnancy, delivery and early motherhood (study **II**).
- c) To explore and analyze adolescents' coping responses during pregnancy and early motherhood (study **III**).
- d) To compare the health-seeking practices of adolescents and adult mothers during pregnancy and early motherhood (study **IV**).

# Maps of Uganda, Africa and Wakiso district

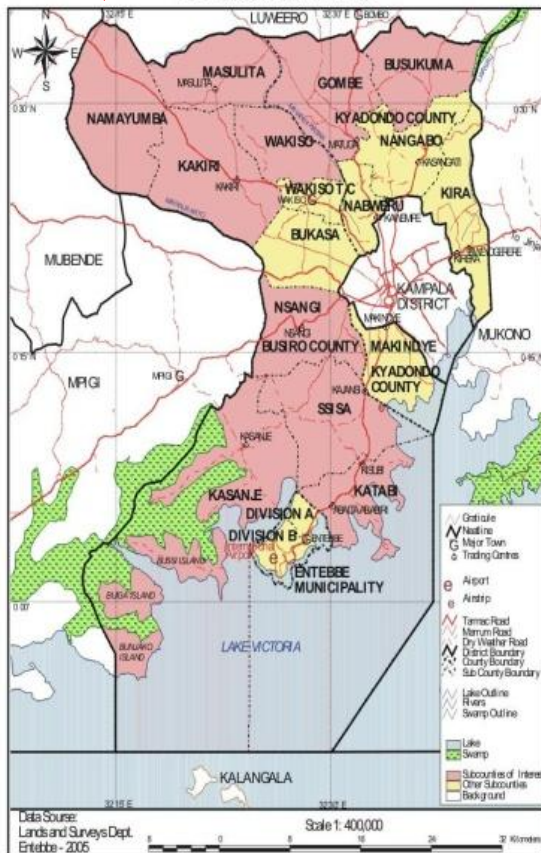
**UGANDA**



**AFRICA**



**WAKISO DISTRICT**



Uganda currently has 80 districts including the study district, Wakiso, which encircles Kampala, Uganda's capital city [91].



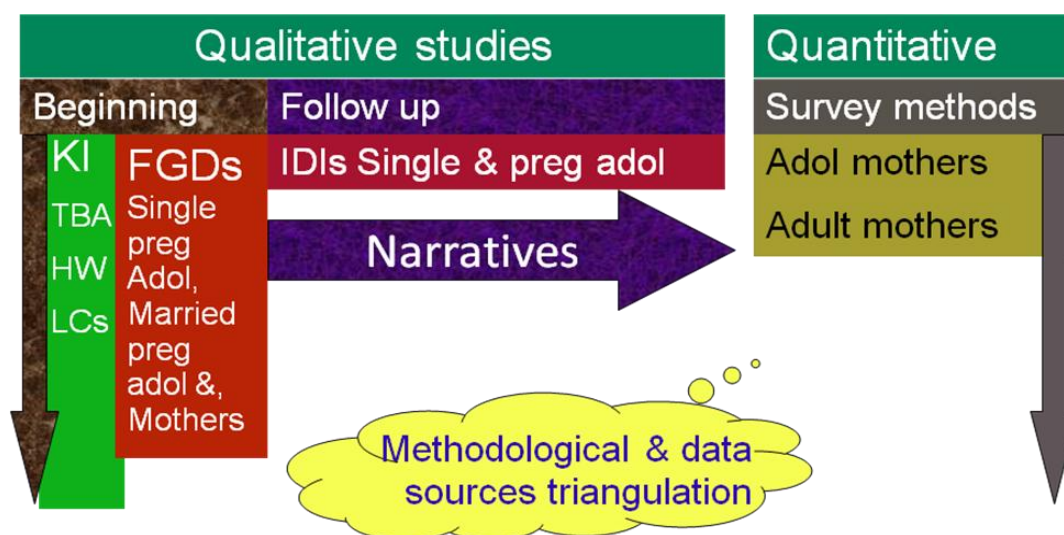
### 3 METHODOLOGY

#### 3.1 AREA OF STUDY AND CONTEXT

These studies were conducted in Wakiso district which is located on the outskirts of Kampala city the capital of Uganda. Wakiso district is located in central Uganda bordered by Kalangala Islands (in Lake Victoria) to the south, Mpigi and Mubende districts to the west, Luwero to the North, and Mukono district to the east. According to the Uganda Population and Housing Census 2002, most people (92%) in this district live in rural areas. The remaining small urban population is heavily influenced by Kampala city and marginally affected by rural life. Demographically, the total population of Wakiso is close to one million people and young people (10-24 years) comprise about 34 percent of the population. Wakiso has two counties and one municipality, 17 sub-counties and 131 parishes with an average household size of 4.1 persons [116]. The majority of the people are Baganda - an indigenous ethnic group. In terms of infrastructure, although the district encircles Kampala, it does not necessarily have a good road network or other infrastructure. The district is served by a total of 93 public and PNFP health units. Table 1.2 gives an estimate of the population served (refer to section 1.5, Table 1.2). There are other private providers including traditional health practitioners. The main occupation is subsistence agriculture, and a big initiative to raise household incomes through growing upland rice was launched and is currently being scaled-up. A fraction of the population is employed in the formal sector and work mainly in the capital city Kampala while residing in Wakiso district.

#### 3.2 OVERALL STUDY DESIGN

This research was designed to encompass two main phases (qualitative and quantitative). The qualitative phase was exploratory in nature and, thus, utilized a number of qualitative research techniques namely focus group discussions (FGDs), key informant interviews (KIs) and in-depth interviews (IDI). Results from this phase directly fed into the second phase, which quantified the magnitude and nature of the problem. Figure 3.1 below gives the methodological schema.



**Fig 3.1: Methodological schema at the beginning for the four studies**

TBA=traditional birth attendants; HW=health workers; LCs=Local councils

Overall, four studies were conducted. In the first study of this research, problems and experiences of adolescent mothers (pregnant and those with infants) in the study district were described using FGDs and KIs (Paper I). Then, the second study explored health-seeking behaviour during



pregnancy and early motherhood in more detail. Focus groups with single and married pregnant adolescents and adolescents with infants were conducted. In addition, interviews with health workers were conducted (Paper II). Having understood the adolescent mothers' experiences and the health-seeking behaviour in the first two studies, twenty-four pregnant adolescents were followed for about 9 months. Periodic interviews were conducted. Narratives of adolescents' experiences, feelings and coping responses regarding their pregnancy, delivery and early motherhood were collected (paper III). The three qualitative studies informed the fourth study, which was a cross-sectional study. Variables, study instruments on adolescent behaviours, and factors influencing adolescent behaviour were elucidated through the first three studies. Qualitative data gave a rich description and in-depth understanding of the situations surrounding adolescent motherhood. In the quantitative study, adolescent and adult mothers' pregnancies and early motherhood practices were compared. Table 3.1 summarizes the participants, methods and time periods.

**Table 3.1: Participants, methods and time periods**

<i>Paper</i>	<i>Study</i>	<i>Study population</i>	<i>Sample size &amp; Methods</i>	<i>Periods</i>
<b>I</b>	Problems and experiences of pregnant adolescents	Pregnant adolescent Adolescent mothers Opinion leaders	6 FGDs (44 adolescent mothers) 6 KII	2003-2004
<b>II</b>	Adolescents' HSB during pregnancy and early motherhood	Married pregnant adolescents Unmarried pregnant adolescents Adolescent mothers In-charge maternity	13 FGDs (92 adolescent mothers) 6 KIs	2004
<b>III</b>	Adolescent coping responses	Pregnant adolescents	54 IDIs (24 pregnant adolescent girls followed for 9 months)	2005-2006
<b>IV</b>	Healthcare seeking practices of adolescents and adult mothers	Adolescent mothers Adult mothers	442 adolescents & 320 adult mothers	2007

### 3.3 QUALITATIVE AND QUANTITATIVE APPROACHES

#### 3.3.1 Qualitative approach

##### **Studies I and II: Experiences of pregnant adolescents (I) and adolescent health-seeking behaviour (II)**

###### *Design (I, II)*

Exploratory studies utilizing qualitative data collection methods, namely FGDs and KIIs, were employed in both studies.

###### *Participants and procedure (I, II)*

For study **I**, six focus group discussions were held with three categories of participants namely, pregnant adolescents (2 groups), adolescent mothers seeking healthcare (2 groups), and adolescent mothers in the community (2 groups) in two health sub-districts of Wakiso district. The total number of participants for the FGDs was 44. The issues discussed were related to pregnant adolescents' social situation with regard to pregnancy, partner relations, perception of community support or rejection, etc. The FGD participants were selected from the community and among those receiving ANC or immunizations for their children at health units. In study **II**, thirteen FGDs comprising a total 92 adolescent girls were conducted. The FGDs were conducted

with homogeneous categories; married pregnant adolescents (5), unmarried pregnant adolescents (3) and married or un-married adolescents with children (5). Participants were adolescents (16-19 years) who were either pregnant for the first time or had delivered their first baby in the previous six months. Topics for discussion were HSB and what determined choices of health service during pregnancy and early motherhood. Less than five subjects declined to participate because of special reasons such as having pre-planned other activities on the day of data collection or because they were not feeling well. The FGD participants were recruited while seeking ANC for their first pregnancy or immunization services for their first baby. This enabled us to learn their experiences with health service delivery. After explaining the study to the health unit (HU) administration, one of the staff would inform possible subjects about the study. Participants entered into the study after receiving the service they were seeking at the health center, i.e. ANC or vaccination for their babies.

### *Methods (I, II)*

*Focus Group Discussions (I, II):* Focus group discussions refer to a qualitative method that gathers people with similar background or experiences to discuss a specific topic of interest to the researcher [117]. This technique allows a small group of participants to discuss issues led by a moderator using a discussion guide [118, 119]. The FGDs were homogeneously composed [120]. A moderator who introduced the topic and the aim of the study guided the discussions.



Focus group discussion with adolescent mothers

Only participants who had time and were willing to participate in the discussions were selected. On average, the number of participants in each FGDs was about eight [121] and discussions were held at a venue identified by and convenient to the participants. Probing was done for shared or conflicting values, attitudes and meanings among group participants. Back translation was used to ensure consistency of meaning in the FGD guide. The guide was translated from the original English version into the local language (Luganda) by one group of research assistants who know both English and Luganda. Then,

another group translated the Luganda version back to English and compared with the original version to ensure consistency [122]. Focus group discussion guides were pre-tested during one group discussion and, thereafter, adjusted for the main fieldwork. Results from the pre-test are not included in the two articles (I, II). In both study I and II, research assistants (recorder/note-taker) were recruited and trained. All FGDs were tape-recorded (with consent) and transcribed into English. Discussions lasted for about 1.5 hours. Adolescents of same age range and civil status usually felt free to discuss with each other, which is often not the case when there are disparity in relation to age and marital status. In order to optimize discussions homogeneity was preferred. Participants were served a soft drink and their transport costs were reimbursed. During the data collection phase, briefing meetings were held at the end of each day to ensure good data quality and to discuss new emerging issues (I, II).

*Key Informant Interviews (I, II):* In study I, semi-structured interviews were held with KIs who, because of their position or experience, were considered to have in-depth knowledge of adolescent girls' reproductive health issues [123, 124]. These KIs were in-charge of health facilities (2), opinion leaders (2), and Traditional Birth Attendants (TBAs) (2). General adolescent issues and problems related to adolescent pregnancy were explored during these KI interviews. Similarly in study II, semi-structured interviews were held with six KIs who were in-charge of the maternity units of health facilities. Key informants were purposefully selected on the basis of being in-charge of maternity units. Key informants were midwives who in addition to

heading the maternity unit, also participated in ANC, delivery and postnatal care. Study participants were recruited from all five HC level IV health units and from one of the 25 HC level III health units in the study area. These levels offer a range maternal health services and have a medical officer. The first author (LA) conducted these interviews, which were tape-recorded and later transcribed. Information was obtained on healthcare practices and perspectives on how adolescent health services could be improved in the district and what could be done to reduce adolescent sexual and reproductive health problems.

### **Study III: Coping responses during pregnancy and early motherhood**

#### *Design*

This was a qualitative prospective study.

#### *Participants and procedures*

Twenty-four pregnant adolescents attending ANC were recruited consecutively at 6 months of pregnancy from four health units using the following inclusion criteria: pregnant adolescent 13-19 years, willing to be followed prospectively for at least 9 months, and not likely to change residence. We planned to interview each adolescent three times, i.e. at 6 months of pregnancy, at one week and three to six months after delivery. The first interview was conducted at the health unit while the subsequent two were conducted in the respondents' homes. Overall 54 interviews were conducted (round one 24, round two 17, round three 13). We could not maintain the original number 24 throughout the study since some adolescents moved to distant districts close to and after delivery. Efforts were made to trace them through local leaders, telephone contacts and their social networks. The principal investigator (LA) took charge of the entire process and four female experienced social science research assistants conducted the interviews.

#### *Methods*

Qualitative, open-ended in-depth interviews were utilized, providing an opportunity for respondents to freely describe their experiences. Respondents were encouraged to give detailed narratives of their experiences and feelings during their pregnancy, delivery and early motherhood period. The interviewer allowed the discussion to cover issues that the respondent deemed important. Each interview lasted one to two hours and was tape-recorded and transcribed verbatim. The interview style was exploratory and non-judgmental. Females interviewed females in order for the respondents to feel free to talk.



In-depth interview with an adolescent mother

### 3.3.2 Quantitative approach

#### Study IV: Adolescent and first-time mothers' health-seeking practices

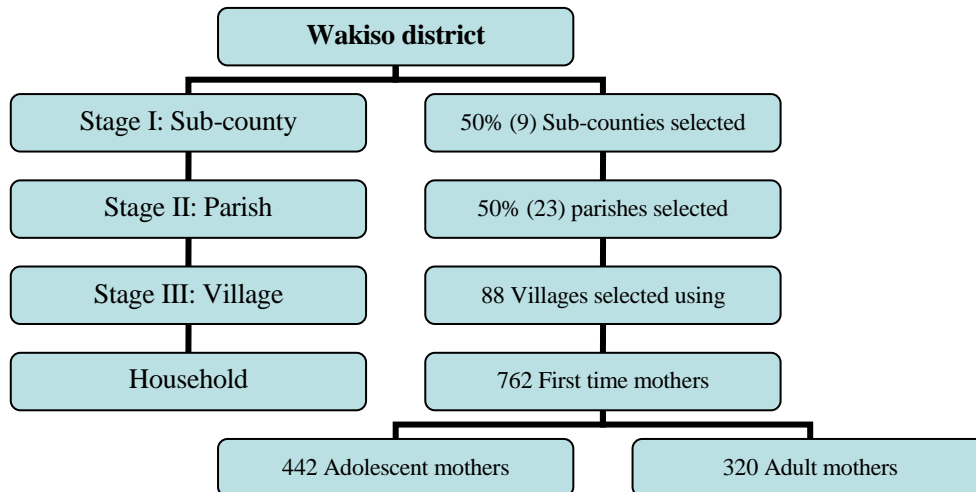
##### *Design*

This was a cross-sectional study conducted among adolescents and adult mothers.

##### *Participants and procedures*

First-time mothers (adolescents aged 13-19 and adults 20-29 years) with a child less than one year of age were recruited. This was to ensure that pregnancy, delivery and early motherhood experiences and practices for both groups were comparable. Bennett's formula was used to calculate the sample size. The formula calculates the number of clusters needed to obtain the required sample size [125] at a given number of respondents per cluster and target precision. The computation for sample size resulted into 616 respondents who would be drawn from 88 clusters (villages) with each village containing 7 households. However, 146 respondents were added to take care of non-response. Using the 2000/1 Uganda population and housing census, we obtained a ratio of adolescent to adult mothers of 6:4. In total, 762 mothers (442 adolescents and 320 adults) were interviewed.

A sampling frame consisting of all villages and their corresponding population sizes was obtained from the UBOS. A mix of multi-stage and cluster sampling techniques was applied (Figure 3.2). Using the multi-stage sampling method 50 percent of sub-counties were randomly selected from the two counties and municipality. Thereafter, 50 percent of the parishes were randomly selected from each of the selected sub-counties. We applied probability proportional to size (PPS) sampling technique. The number of villages selected from the parishes was proportionate to the size of the parishes. The bigger the population in a parish, the more villages selected. This is a sampling procedure which allows a higher probability of selecting villages with larger populations. In each selected village, two sampling frames, one for female adolescents 13-19 years and the other for adult women 20-29 years were constructed. Those who qualified to be in the sampling frames were first-time mothers with a child of not more than one year of age. About nine mothers representing 9 eligible households (5 adolescent and 4 adult mothers) were randomly selected from the constructed sampling frame from each of the 88 villages using simple random sampling technique. A table of random numbers was used. Where there was more than one eligible woman in a household, the one with the lowest last digit of their birth day (day of the month) was selected. One follow-up appointment was made in case an interview could not be carried out during the initial visit.



**Figure 3.2: Illustration of the sampling strategy**

Prior to data collection, a pre-visit was made to the sampled villages. During this visit, contact with the village leaders was made and guides were identified for the survey. In addition, dates for data collection were agreed upon. Later on, letters were sent to chairpersons of the local councils with details of the date of visit and a request for cooperation. Local area council chairpersons were the main points of entry into the field.

### *Methods*

A structured questionnaire with closed and a few open-ended questions was used. Questions were developed using the previous three qualitative studies and some were also adopted from the 2006 UDHS questionnaire. Ten female graduate social scientists with experience in field data collection were recruited. They all spoke the local language (Luganda) and were trained for five days. The content of the training included the description of the study objectives, methods of data collection and sampling techniques. The focus in the questionnaire was on health-seeking behaviour for curative and preventive services during pregnancy and early motherhood. A one-to-one question and answer simulation exercise including possible responses in the local language was held. The questionnaire was translated into the local language (Luganda) and back-translated into English to ensure consistency of meaning. It was pre-tested on the fourth day of training in Kasangati (Nangabo sub-county) 15 km from Kampala city. A debriefing session was conducted and questions were refined. All 30 pre-tested questionnaires were entered in data entry software (EPED) and analyzed. These questionnaires are not included in our results. Field procedures, recording and editing answers were reviewed.

## 3.4 DATA ANALYSIS

### 3.4.1 Qualitative

#### Study I:

**Analysis:** Qualitative content analysis was done for both FGDs and KI interviews. The field research team and investigators read through all the transcripts, notes and interviews several times making notes and eventually identifying key words and, later, developing categories and themes. Analysis was done manually. The topics that resonated from the critical mass of data were further systematically analyzed for commonalities, variations and disagreements. Five topics emerged from the data: family and community problems, abortion, gender-related problems, economic and health problems, and health workers' attitudes.

#### Study II:

The initial step was to read through the transcripts several times while making notes on the transcripts. The first and last authors and two graduate social science research assistants participated in this process. Disagreements or issues needing further clarity were resolved through discussion and triangulation of the data. We used *FreeMind* computer software to generate the key ideas emerging from both the FGDs and the KI interviews. Latent content analysis technique was used. This technique refers to what the text talks about with relationship aspects and involves in-depth interpretation of the underlying meanings of the text. Data was therefore, condensed, i.e. shortened without losing quality [126, 127]. Open-coding was done and codes grouped into categories. Themes were then identified as stipulated by Graneheim and Lundman, 2004 [128]. For example, codes such as 'hide till delivery', 'feeling regret', generated categories like 'dilemma of becoming an adolescent mother' and subsequently the theme 'feeling exposed and powerless'.

#### Study III:

In study three, narrative analysis as described in the literature [129-131] was done, starting by reading the transcripts several times. Initially we read for content and coherence. We identified transcripts that were rich in information and used them as paradigm cases [132]. In reading through the last time, we made condensed notes on each of the narratives noting the pattern and characterizing the adolescents. During analysis, we alternated between being 'narrative finders' – looking for the narrative contained in the interview and being 'narrative creators', i.e. molding the many different events into coherent stories. Thus, the analysis was a condensation or reconstruction of the many stories told by the different subjects into a few richer, more condensed and coherent stories compared to the scattered stories of the separate interviewees [133].

Two narrative types and one case narrative emerged from the data. We named the two narrative types 'dealing with problems' (DWP) and 'avoidance and shame' (AS), and the narrative case 'violence and grief' (VG). The DWP adolescents were characterized by actively trying to solve their problems, e.g. seeking healthcare and social support, taking responsibility for contraception, and initiating innovative ways to earn a living. The AS was the 'resigning type' who felt helpless and kept avoiding realities of life, while the VG case had endured violence, was traumatized due to child loss and did not see the future.

### **3.4.2 Quantitative**

#### **Study IV:**

Field supervisors checked for completeness, consistency and validity of every completed questionnaire before data entry. The first author (LA) conducted debriefing meetings every evening to discuss daily field progress and to make adjustments in the research process when necessary. Extensive validity, consistency and range checks were embedded in the data entry software by the third author (NT).

The completed questionnaires were entered into the computer using EPIDATA software [134]. This data was then exported to STATA V.8 for data analysis. Frequency distribution of all variables was run to check for any unfamiliar pattern in the process of data entry. Odds ratios (OR) with their corresponding 95% confidence intervals (CI) were calculated. All data analysis was performed using STATA V.8 [135]. Statistical significance was based on  $p$  value  $<0.05$ .

### **3.5 ETHICAL CONSIDERATION**

Ethical approval was obtained from the research and ethical committees of the Faculty of Medicine Makerere University in Uganda and the regional research and ethics committee in Stockholm, Sweden. In addition, permission to conduct the study was obtained from Wakiso district local government. Written informed consent from adult mothers and emancipated minors according to Ugandan ethical guidelines was sought from respondents before interviews begin [136]. Participants were informed that there were no or minimal risks to study participation, that participation was voluntary and that they could withdraw from participation at anytime during the interview. They were also informed that refusing to participate would not affect the usual services they normally access at health units.



## 4 RESULTS

The key questions answered in the results are: What situations/experiences do pregnant adolescents face during pregnancy and early motherhood? Where do adolescents seek healthcare and what determines their choices during pregnancy and early motherhood? Is there a difference in health-seeking behaviour between adolescents and adult mothers? What are the adolescent mothers' main coping responses? These key questions were investigated qualitatively and quantitatively, and, thus, results are presented thematically.

### 4.1 ADOLESCENT MOTHERS' EXPERIENCES (I, II, III, IV)

#### 4.1.1 Problems experienced during pregnancy (I, IV)

In the first study where focus groups were held with pregnant adolescents, adolescent mothers with infants, and with community opinion leaders (COLs), it was agreed in all the six FGDs and among the six KIs that problems arising from family and community were extensively experienced by pregnant adolescents. Discussions indicated that the onset of problems was when parents recognized that the adolescent girl was pregnant:

*The problem we face as adolescents is being chased away from home when you get pregnant and this is done by parents. You will begin loitering like one who doesn't have a home... and at delivery the man will also deny being the father of the child. You may decide to go back home but life will not be the same there anymore, your parents will act different and this surely is what most adolescent pregnant go through. (FGD adolescent mothers, Kasangati).*

There were suggestions made by most KIs that pregnant adolescents should receive empathy and support from their parents, rather than being sent away from home. Furthermore, pregnant adolescents are often sent away from school. One KI emphasized the lack of school policy with regard to pregnant girls and that the school environment is not favourable for the girls to return to after delivery.

In the majority of the FGDs it was mentioned that becoming pregnant as an adolescent was a stigmatizing experience and that it brought shame to the family. Community members were said to be negative and, in some cases, girls decided to hide their pregnancy. The following quote demonstrates this scenario (paper I):

*If girls get pregnant, the people around will point fingers at them, which leads them to stay in the house and not come out during day-time. Some are forced to leave their homes to places where they are not known. (FGD pregnant adolescent girls, Kasangati).*

In the survey that followed (paper IV), women were asked about social, economic and health problems experienced during pregnancy. Almost half of both adolescents and adults said that they had experienced frequent ailments during pregnancy, such as malaria, fever, swollen legs, anaemia, and morning sickness. Significant differences between the adolescents and adult mothers were found in terms of likelihood of being rejected by partners. Adolescent mothers were more likely to be inappropriately dressed<sup>1</sup> (OR=1.79, 95% CI: 1.29-2.49) during pregnancy and to be stigmatised by the community (OR=1.58, 95% CI: 1.09-2.59) compared to adult mothers. Adolescent mothers were more likely to lack disposable income compared to adult mothers (OR=1.64, 95% CI: 1.20-2.24). Up to 40 percent of mothers feared that they might die while giving birth and more than one-third were not certain that their infants would survive birth. These uncertainties were significantly more common among the adolescent mothers compared to the adult mothers.

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<sup>1</sup> Self and community perception – dress no longer fitting because of pregnancy



#### 4.1.2 Domestic violence and grief (I, III, IV)

Violence was experienced by adolescents. Papers **I** and **III** highlight this as a big problem. Paper **I** reports that some situations resulted into physical and psychological violence.

*One may have a very harsh parent, myself I have a very harsh father. I fear that if I tell him he can beat me up. ... in the community there are some aged women who recognize the pregnancy and talk about it. When a parent afterwards learns about it, he comes and beats you up, at times when you are not willing to leave home he sends you away. (FGD Pregnant adolescent girls, Wakiso).*

Furthermore, quantitative results indicated that adolescents were more likely to be victims of violence by parents (OR=2.07, 95% CI: 1.39-3.08) and were more likely to be sent away from school (OR=5.94, 95% CI: 2.50-14.11) and home (OR=5.94, 95% CI: 2.50-14.11) compared to adult mothers. This violence affected adolescents' psychological health and well-being (paper **IV**).

In a prospective study that followed 24 adolescents till 6 months after delivery (Paper **III**), 'violence and grief' was an important feature of the narratives that were generated. Within this sample, three lost their babies at birth and two of those were physically abused by their partners during pregnancy. Several others had also experienced violence from partners. The narrative case labeled 'violence and grief', is thus characterised by traumatic events leading to intense feelings of fear, grief and helplessness.

#### Fatima's Narrative case

Fatima (pseudonym), an 18-year-old adolescent, lived with her partner but later separated due to the physical violence he inflicted on her. In the first interview, Fatima narrates her ordeal

My partner is a very harsh man. He battered me when I was two months pregnant. My mother called me to go and see my sibling who was going to get treatment. I went there to assist him to go to the hospital. On my coming back I was battered by my partner, because he did not allow me to go to my mother's home, and he told me never to go visiting my mother's home again. He beat me, kicked me on the stomach... eventually we separated.

The three young women who lost their babies at delivery tell about prolonged labour, unskilled health workers, and inability of the TBA to assess risky pregnancy and refer the woman to higher levels of health care. Fatima narrates her difficult labour and delivery experience in her second interview with us:

I had gone to deliver at a traditional birth attendant's home because we failed to get means of transport. The labour pains started around 3:00 pm and continued up to night-time – the baby had failed to be in position. At about two o'clock in the morning the traditional birth attendant who was assisting in the delivery ordered me out of her house and said 'I have failed to handle your delivery and I can't afford to handle you now, it is too late at night. You need to go to Mulago [national referral hospital] now and yet your people are far from here. If I had somebody to accompany me, I would go and call or inform your people to come and take you to the hospital. So you must get out of my house'. I walked outside her house – stayed outside alone – alone at night, nobody at all to help me [weeping]. The baby was ready for delivery but was too tired to come out. I became so weak, unable to walk at all and fell down. When I fell down, I shouted 'I feel the baby getting out please! So she rushed back to her house, put on the gloves and came. With great force she held the head of the baby, pulled the baby out of me and threw the baby on the ground. **Int:** You were still outside when all this was happening? **Res:** Yes, we were outside and she pulled and threw the baby – like there on the ground [respondent pointed her finger on the ground]. She then blew air into the mouth of the baby. She rushed into the house and got out cloths to cover the baby. The baby's heartbeat could be seen slowly pumping. She thereafter carried the baby to the house but sadly, it could not live. My baby died shortly after delivery. I am now hopeless and I do not see any future. All the things people tell me keep haunting me, for instance, some girls have died during delivery. Sometimes the child or the mother dies during delivery.

#### 4.1.3 Food and nutritional concerns (I, IV)

Food and nutrition was a major concern for adolescent mothers. In almost all the FGDs in study one, it was mentioned that pregnant adolescents' feeding practices were inadequate both during

pregnancy and after delivery (paper I). This was mainly attributed to the socio-economic status of the families, neglect and resentment by their husbands as illustrated below:

*We don't get sufficient food to eat, because there is no money. When you ask the man for money, he tells you he has no money.* (FGD adolescent mothers, Wakiso).

Further to the above, in the quantitative survey it was revealed that 17 percent of adolescent mothers said that they had lacked sufficient food during pregnancy, compared to 13 percent of adult mothers (paper IV).

#### **4.1.4 Dilemmas of becoming an adolescent mother (II)**

Adolescents who considered themselves too young felt exposed as they gained weight due to pregnancy. They were ambivalent as they felt ashamed to meet their peers and feared to visit health facilities. Moreover, as men dominated the decision-making process, adolescents felt powerless as they lacked adequate financial and social support (paper II).

Results show that adolescent girls who conceived tended to live with a feeling that they were too young to manage the pregnancy. Additionally, they often felt that they might not get adequate support to go through the pregnancy and deliver healthy babies. Commonly, adolescent girls lacked stable relations with the father of the baby. In nearly all the FGDs and KIs, it was mentioned that the boys/men denied responsibility for the pregnancy.

*The father of this child after making me pregnant denied it. So my mothers' relatives took care of me and I started living with my grandmother. ...the baby's father lives in same village but does not give any support* (FGD Adolescent with child, unmarried, Namayumba HC IV).

Paternity of children was contested by men/boys responsible for the pregnancy. Some adolescent mothers could not tell who the father of the child was. This was a result of having unprotected sexual encounters with different men in the same time period. In addition, these men/boys were either too young or did not have a strong financial means to take on family responsibility. This led to material and financial vulnerability, and, hence, poor access to ANC and delivery services. This situation also led to a feeling of regret as some adolescents felt that they were not ready to have a child at this young age.

Adolescents were ashamed to meet their peers who were still in school. They, therefore, preferred not to be seen until they had delivered. They found it convenient to avoid public places like health units and preferred to seek care from traditional birth attendants' (TBAs) homes where there was confidentiality and a limited possibility to meet many people.

*Those who become pregnant while still in school fear to go for healthcare at the health units. They fear to get ashamed or meet their own colleagues in schools. Such girls would before pregnancy have been proud and calling themselves virgins, so they find that they cannot stand all that shame, so they decide to keep at home.* (FGD married pregnant adolescent Namayumba HC IV).

It was emphasized that nearly all unmarried adolescents who became pregnant were not prepared for pregnancy and motherhood. Knowledge about the material and psychosocial demands of motherhood were lacking and the essential needs for both mother and baby, such as clothing, food, soap, advice and counseling were not available. Married adolescents received support from spouses in contrast to those who were not married.

*Most men make the girls pregnant and run away. You suffer with the pregnancy till you deliver without a single cloth or even the soap to bathe. ...you can be without any one to advice about what is needed when one is pregnant.* (FGD Adolescent not married, Tikalu HC III).

#### **4.1.5 Gender power relations and decision-making (I, II)**

Gender power relations also emerged as an important issue in adolescent pregnancy. Due to gender inequality and lack of understanding between the couple, adolescent mothers were treated inhumanely.

*We who have young men as husbands find it a problem. When you get pregnant he is not merciful, he cannot treat you like a normal person, even when you tell him that you are sick, he says 'I left a person without any illness, how can this happen? Serve me food'. In other words he wants you to do everything for him, he has no compassion over your health condition. If he finds that you have not done any work, he abuses you and just quarrels... (FGD adolescent mothers, Wakiso).*

Adolescent fathers lacked economic capacity to take charge of family responsibility. Still they denied their young wives the chance for gainful employment to generate income for the family, which is illustrated in the following quote:

*The problem is that there may be financial organizations which would be willing to lend money to a mother but the husband stops her to work especially adolescent mothers, this is a problem because he has not given you any support and yet he stops you from working. (FGD, pregnant adolescent girls, Wakiso).*

Gender power dynamics play an important role in the choice of healthcare. Spouses of adolescents were reported to have absolute power in the healthcare decision-making of the adolescent mothers.

*Your partner decides for you where to go. For example he can tell you to go to the government hospital and in case you get other complications he then decides to give you money to go to a better health centre. (FGD unmarried pregnant adolescent, Ndejje HC IV).*

*The father has absolute power over me and the baby. He can decide that today; don't take the baby back to hospital. You as a woman you have no way of opposing him because he has all the powers ... he is the one who pays. (FGD, Married adolescent with child Tikalu HC III).*

## **4.2 ADOLESCENT HEALTH SEEKING BEHAVIOUR (II, IV)**

### **4.2.1 Antenatal care practices (IV)**

In the quantitative survey (paper IV), 442 adolescents and 320 adults, all first-time mothers, were interviewed regarding their health-seeking behaviour during pregnancy and early motherhood. Results revealed that although the majority of adolescent and adult mothers attended ANC at least once, very few (less than 15%) attended at least once within the first three months of pregnancy. The mean number of times adolescent and adult mothers attended ANC were nearly the same (4.1 and 4.3 respectively), while adolescent mothers were 1.5 times more likely to attend less than four ANC visits (OR=1.52, 95% CI: 1.12-2.07) compared to adult mothers. There was no difference between adolescents and adults with regard to how early they attended or where they sought ANC services. Both groups mainly attended public health institutions (Table 4.1).

**Table 4.1: Adolescent and adult mothers pregnancy related practices**

Health seeking practices	Adolescent mothers		Adult mothers <sup>‡</sup>		OR	95% CI
	n=442	(%)	n= 320	(%)		
<b>ANC during pregnancy (n=761)</b>						
Yes	429	(97.3)	315	(98.4)	0.57	0.20- 1.63
No (base outcome)	12	(2.7)	5	(1.6)		
<b>Months of pregnancy at first ANC visit? (n=744)</b>						
One to three months	54	(12.6)	47	(14.9)	0.82	0.54-1.25
Four and above months (base outcome)	375	(87.4)	268	(85.1)		
<b>Number of ANC visits? (n= 742)</b>						
Less than four times	171	(40.0)	96	(30.5)	1.52	1.12-2.07*
Four and above (base outcome)	256	(60.0)	219	(69.5)		
<b>Mean Number of ANC visits</b>						
	4.1		4.3			
<b>Place for ANC (n=729)</b>						
Public hospital	141	(33.8)	107	(34.3)	0.87	0.62-1.21
Private hospital/clinic	77	(18.5)	74	(23.7)	0.68	0.46-1.01
Public health centre [base outcome]	199	(47.7)	131	(42.0)		

<sup>‡</sup>reference group; \*statistically significant; N.B. Odds among adolescent mothers are divided by odds among adult mothers

#### 4.2.2 Childbirth practices (II, IV)

In seeking safety (paper II), adolescent mothers' expectations were largely not met as they experienced lack of compassion at health facilities. They, therefore, resorted to the use of herbal remedies and were entangled in cultural beliefs. Some cultural practices for childbirth included placenta rites. Like adult mothers, adolescents described a strong traditional belief surrounding the placenta. To be able to access the placenta was considered an important factor that influenced the choice of place of delivery. Often in public health facilities, women were not given the placenta because it was considered biological/medical waste and was incinerated or thrown into a placenta pit.

*For us the Baganda we undergo a traditional practice we call "Okufugika<sup>2</sup>" – The practice will make the child who stays on earth to be a clever person. But if they [health workers] throw the 'second child' [placenta] into a latrine the child who stays on earth becomes dull and not intelligent. (FGD married pregnant adolescent Namayumba HC IV).*

On the other hand, TBAs were said to give the placenta to the mother who took it to perform some traditional rituals as indicated below:

*If you deliver with the help of elderly women, they wrap the placenta so well. This helps the child's life and that of the mother (FGD adolescents with child, Wakiso HC IV).*

One of the practices also believed to be therapeutic is the use of 'Emumbwa<sup>3</sup>', which reinforces health-seeking from TBAs and other herbalists. In some cases, adolescents were able to distinguish a condition suitable for traditional medicine from conditions suitable for western medicine. A married adolescent described her experience that:

*I used clay [Emumbwa] when I was pregnant because my grandmother used to make it but when I saw that I had fever I then told my uncle and he gave me some drugs [tablets] to take. (FGD married adolescent with a child Namayumba HC IV).*

<sup>2</sup> 'Okufugika' means burying the placenta under a banana plant in a banana plantation

<sup>3</sup> 'Emumbwa' is a concoction of traditional herbal medicine and clay soil moulded into a bar, which is dried and taken in water as a suspension. There is a belief that it helps alleviate pregnancy complications and in particular shortening labour.

In addition, some herbs were widely used as they were believed to be helpful in ensuring safe delivery. They were said to make the pelvic bones flexible ‘okumenya<sup>4</sup>’ making the delivery process easy and less painful. The route of administering herbal medicine was to bathe or smear the body.

*They also [healers] give us herbal medicine, which is administered through bathing it mixed with water [in form of herbal bath]. It is important to take herbal bath when pregnant. ... this medicine is got from the traditional healers. It refreshes body and helps to regain energy. (FGD Pregnant married adolescent Wakiso HC IV).*

In spite of the above traditional practices, quantitative findings (Paper IV) revealed that over 85 percent of women were assisted by health practitioners at health units during delivery. There was no statistically significant difference between adolescents and adults with regard to where they gave birth and who assisted them. Adolescent mothers were nearly two and one-half times more likely to be advised by relatives as to where to give birth (OR=2.45, 95% CI: 1.21-4.91) compared to adult mothers. Over 40 percent of all mothers either walked or travelled by motorcycle when labour began. Almost two-thirds of the mothers (adolescents 65%, adults 59%) indicated that lack of money was a major barrier to seeking biomedical healthcare.

#### **4.2.3 Breastfeeding and childhood vaccination (IV)**

The interviews with adolescents and adult mothers in paper IV showed that over 95 percent of women had ever breastfed but several kinds of feeds such as sugar/glucose water, ghee in mushroom soup were given before breast milk started to flow. Adolescent mothers were more likely to delay the initiation of breastfeeding (OR=1.48, 95% CI: 1.00-2.17) compared to adult mothers. They started breastfeeding after two days of breast milk flow. Most mothers (65%) introduced solid foods at six months or later.

Regarding childhood immunization, vaccination coverage (assessed using the vaccination card method) was 69 percent. Adolescent mothers were significantly less likely to report possession of a vaccination card compared to adult mothers. Adolescent mothers were also less likely to seek subsequent doses of series vaccines as compared to adult mothers [Polio2 (OR=0.73, 95% CI: 0.55-0.98), Polio3 (OR=0.70: 95% CI: 0.51-0.95), DPT2 (OR=0.71, 95% CI: 0.53-0.96), DPT3 (OR=0.68, 95% CI: 0.50-0.92)]. However, we did not observe any difference between adolescents and adults regarding vaccination for measles and Vitamin A supplementation (Table 4.2).

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<sup>4</sup> “Okumenya” refers to enabling the tissues/ligaments of a pregnant female to become flexible, and easy to expand when time of delivery comes so as to allow easy delivery.

**Table 4.2: Childhood immunization among adolescent mothers and adult mothers**

Variable	Adolescent mothers		Adult mothers <sup>‡</sup>		OR	95% CI
	n=442	%	n=320	%		
<b>Have card where vaccinations are written</b>						
No (base outcome)	81	(18.4)	30	(9.4)		
Yes	360	(81.6)	288	(90.6)	0.46	0.30-0.72*
<b>Vaccination card seen</b>						
No (base outcome)	106	29.8	191	33.2		
Yes	250	70.2	95	66.8	1.17	0.83-1.66
<b>Child vaccination for the following<sup>‡</sup>?</b>						
(no=base outcome)						
BCG	251	(56.8)	190	(59.4)	0.90	0.67-1.20
Polio 0 (Polio given at birth)	205	(46.4)	161	(50.3)	0.85	0.64-1.14
Polio 1	212	(48.0)	172	(53.8)	0.79	0.59-1.06
Polio 2	172	(38.9)	149	(46.6)	0.73	0.55-0.98*
Polio 3	127	(28.7)	117	(36.6)	0.70	0.51-0.95*
DPT 1	202	(45.7)	163	(50.9)	0.81	0.61-1.18
DPT 2	155	(35.1)	138	(43.1)	0.71	0.53-0.96*
DPT 3	118	(26.7)	112	(35.0)	0.68	0.50-0.92*
Measles	60	(13.6)	54	(16.9)	0.77	0.52-1.15
Vitamin A (most recent)	63	(14.3)	49	(15.3)	0.92	0.61-1.38

<sup>‡</sup>reference group; \*statistically significant; <sup>‡</sup>data transcribed from vaccination card; N.B. Odds among adolescent mothers are divided by odds among adult mothers

#### 4.2.4 Adolescents' experiences with healthcare (I, II)

A number of issues arose in studies **I** and **II** regarding adolescents' experiences with healthcare. The attitude of health staff towards adolescents was reported to be negative. This discouraged adolescents from utilizing public health care. They resorted to traditional herbalists or just stayed at home. In study one, for example, pregnant adolescents in FGDs agreed that health workers were not friendly. In all the FGDs, it was pointed out that HWs in public health facilities had negative attitudes towards pregnant adolescents (Paper **I**). The participants indicated that HWs were rude, abusive, and threatening as the following quote illustrates:

*Health workers here shout at us. They will ask you why you were hurrying for sexual relationships. If you are to deliver at the health center, they may even apply caesarean although you could have delivered normally... yes some do it as a way of punishment.* (FGD pregnant adolescent girls, Wakiso).

The adolescent girls also complained that HWs did not practice their professional ethics correctly and that confidentiality, in particular, was not kept. They alleged that HWs shared their secrets with the girls' parents and other people. The negative attitudes among HWs influenced adolescents' health-seeking behaviour and made them seek care from traditional healers (TH) and private clinics, or just stay at home when ill, as illustrated below:

*When I come here for ANC and the nurses start examining me, they abuse me and even blame me for getting pregnant at a young age, yet I got pregnant without knowing [laughter]. They say "What were you looking for you young girl? Now you are going to die innocently". The end result of this is that I am not going back for ANC as I fear the health workers".* (FGD adolescent mothers, Wakiso).

This was re-emphasized by the married adolescents who pointed out that there was laxity among HW while on duty. Health workers' attitude discouraged adolescents to seek ANC and delivery services. Discussions showed that some HW had a 'don't care attitude' and that they were sometimes rude and abusive to patients. These practices de-motivated adolescents from utilizing public health (Paper **II**) units as described below.

*They don't care for patients, for example when you go in the morning they will ask you "at your home don't you sleep". When you go at lunch time, they will ask you whether at your place you don't take lunch. And when you go for treatment in the evening, they will tell you they have closed up. So, what I am saying is we get discouraged to come here for treatment.* (FGD Married adolescent with child, Tikalu HC III).

Some adolescent mothers in labor had experienced physical violence by HWs. Besides, the behaviour of the health staff sometimes made clients fear to express themselves or to explain their health conditions as indicated below:

*There is a health worker who is rough, when you get labour pains, and you tell her, she will just slap you. Where do you get the energy to push? They really slapped me from here. They told me to climb on the bed, I did not have the energy what she did, she slapped me. (FGD Married adolescent with child Tikalu HC III).*

*There are health workers who are naturally rough, even when they are talking. And yet he is supposed to handle me very well, and I tell him my problems. But because he has shouted at me, I may fear to tell him my problem. (FGD Married adolescent with child, Tikalu HC III).*

Good hygiene or lack of it at public health facilities appeared to influence health-seeking behaviour. In some cases, facilities were reported to be dirty with a bad smell, which made adolescents detest the services. They were worried that they might acquire infections from the health units. This was echoed by a key informant that emphasized the absence of basic needs like water, which could compromise hygiene and increase the risk of infection and spread of communicable diseases.

*Although we have these water tanks here water is not accessible to patients. This water is rationed for conducting deliveries and cleaning the floor. ...it is a problem, keeping oneself [the mother] clean after delivery. No bathing. (KI Wakiso HC IV).*

Perceived good quality of care served as an attraction when seeking healthcare at public health facilities. Good quality of care was said to be found in some units in the district. Key elements considered included consistency of good service, empathy from health workers, assurance of round-the-clock access, and limits to delays on arrival. There was, however, a gap between the real situation at the health units and the information prevailing in the community [rumors].

*I had heard rumors that this health centre was dirty but when I came to deliver the beds were so clean and the floor was clean. One could sit down on the floor but before I came I was scared by people that it was dirty and I would acquire diseases. The health workers were caring and kept checking on me, I was counseled. (FGD married adolescent with a child Wakiso HC IV)*

#### **4.2.5 Key influences for health seeking (I, II, IV)**

In search for well-being, adolescents face situations that require a secure referral system. Financial security, clean and safe delivery place, competent health staff are required in case of emergencies. Respondents mentioned that these elements were critical in influencing HSB.

##### *Access to financial resources (I, II)*

Adolescent choice of health care during pregnancy was heavily influenced by partners or parents who could provide financial support. Results from both FGDs and KIs indicated that financial support was needed for transport and maternity requirements (delivery kit) for the mother and the newborn. Money was needed to cover costs of drugs and supplies (gloves, registration book, etc) and consultation (in the case of private clinics). In most cases, adolescents lacked access to these requirements (paper II).

*When I was pregnant what prevented me from seeking healthcare was lack of transport money because my legs were a problem. I used to live far away in the hills and I could not ask anyone to take me on a bicycle because I would be asked for money. So I decided to rely on my grandmother's traditional herbs. (FGD Unmarried adolescents, Namayumba HC IV).*

The groups discussed how lack of money influences pregnant adolescents' health-seeking behaviour. It was described that an adolescent may attend ANC in the village and if it is her first pregnancy she is advised to deliver at the hospital. However, she might only have money for transport but nothing extra to be able to pay for emergency services. Extra money was needed in case of emergency or if the pregnant girl needed to be referred to another level of healthcare for

better management. So in the end, she may decide to deliver in the village. Moreover, husbands were said to be poor and unable to meet the cost of pregnancy and delivery (paper I).

The adolescents discussed their need for maternity dresses to accommodate their ‘expanding bodies’. Due to financial constraints, they could not afford these new clothes, which inhibited them from seeking ANC services. They feared to ‘look funny’ in very tight dresses or in their previous school uniforms. The discussions also indicated that if they were to deliver in public health units they would need ‘big shopping’ for their newborn babies. They feared to be laughed at by the peers and better-off women if they did not bring new clothes for the newborn, towel, baby coat and other gifts. All these costs scared adolescents who had no income but were dependant on parents, relatives, boyfriends and well-wishers. The traditional sector offered an attractive alternative to care. Traditional birth attendants do not always require money in cash before they provide treatment. Adolescents were, at times, allowed to pay later when they got better and were able to pay. Traditional healers were said to be more socially and physically accessible. They live within the community, spend more time with the client, and were perceived to have good counseling skills (paper II).

*Some go to deliver at the TBAs place because they do not have money for transport or pay at the private clinics. The TBAs do not charge much money and we do not need transport because they live within the community. (FGDs pregnant married adolescent, Wakiso HC IV).*

#### *Mode of transport (II, IV)*

The mode of transport to the health units posed a threat to pregnant adolescents’ health. The common mode of transport in the district is by bicycle or motorcycles. In some areas the homesteads are far from regular routes of commuter taxis. The commonly used type of transport was uncomfortable to expecting mothers. Bicycles were described as either inappropriate or too slow to address the urgent needs of adolescents in labor. The remaining option was then home delivery or TBAs.

*Due to labor pains, they [adolescents] cannot even sit on a bicycle. TBAs try to assist them but end up getting complications because they failed to reach the health centers. (FGD married adolescent with child, Namayumba HC IV).*

This was confirmed by study four where up to 40 percent of the mothers either walked or used bicycle/motorcycle to health facilities when in labor (paper IV).

#### *The ‘significant other’ (II)*

The results showed that social factors influenced adolescents’ possibilities to seek healthcare in relation to their pregnancies. The choice of healthcare was mostly influenced by family members, partners or people the adolescent girl lived with during the pregnancy. The level of awareness among adolescents regarding healthcare was also found to be poor. At times family members said that there was no difference between traditional and western medicine. Some made herbal preparations in the home as indicated below:

*Ok, the elders can convince you not to go to health facilities. ...they tell you that they will cook for you traditional herbs, they also tell you there is no difference between western and traditional medicine. (FGD unmarried Pregnant adolescent, Wakiso HC IV).*

#### *Advice from elders(II)*

Elders and grandmothers tended to refer to their own experiences of pregnancy and childbirth in order to convince pregnant adolescents that they did not need to seek biomedical healthcare. The quotes below highlight this view:

*I have ever witnessed it, the adolescent was pregnant, she was our neighbour and the grandmother asked her that ‘how come we did not go to the hospital during our days. Didn’t we deliver?’ and yet the adolescent really wanted to go to the hospital because she was in pain. (FGD Married adolescent with child Namayumba HC IV).*



*Old women can mislead a young pregnant girl and tell her that they had ten children in their life without going to health units for antenatal care. So such misinformation make some of us not go for antenatal care to the health facilities. (FGD married pregnant adolescent Buwambo HC IV).*

### *The need for effective referral system (II)*

The referral system is an important component in the maternal and child survival strategies. Key informants indicated that they received patients who required referral but that lack of transportation delayed care and that this could lead to complications and even death.

*You might receive a pregnant adolescent due in labor that needs an operation. This necessitates a doctor whom we do not have and therefore need to be referred. You know we even do not have an ambulance at this facility. (KI Health worker Tikalu HC III).*

*There is one who died from there due to delay in transport. She went to the TBA to deliver. She was told that her situation was a hospital case. So she died on the way to hospital. (FGD married adolescent with child, Tikalu III).*

There was an expressed wish for a good referral system that could assure safety in case of emergency. Among adolescents' worries was that they were prone to complications that might require referral.

*I would like to deliver from health units where I am given good care, like quick attention or in case I fail to deliver, they give me ambulance vehicle to take me quickly to Mulago [national referral hospital]. (FGD Unmarried pregnant adolescent Buwambo HC IV).*

Most pregnant adolescents were said to visit the health units mainly to acquire an ANC card. Although their preferred choice of delivery was at the TBAs place they wanted to be easily referred to the public healthcare system in case complications arose. These ANC cards gave a sense of security as indicated in the following quote:

*People say that in case you have an emergency in the village, for example if you fail to deliver then you can come to the health centre and easily get quick treatment but if you do not have the antenatal card you are chased away. So it is a security measure. (FGDs Married adolescents with a child, Namayumba HC IV).*

## **4.3 ADOLESCENT COPING RESPONSES (II, III)**

### **4.3.1 Dealing with problems (II, III)**

Adolescents made several efforts to deal with the constraints experienced. Results from paper two showed that adolescents had different ways of dealing with monetary requirements related to pregnancy and childbirth.

#### *Mini income-generating activities*

Pregnant adolescents were sometimes involved in mini-trade like selling tomatoes, and subsistence agriculture (growing of cassava, vegetables etc). They also offered manual labor in the gardens to earn money.

*Where I live my grandfather has much land with a forest, so I cut trees and burn charcoal for sell. I also grow cassava. If my child gets sick I can sell the cassava and get money to pay for his treatment. (FGD Adolescent with child, Namayumba HC IV).*

Key informants and participants in FGDs recommended that the 'girl child' needs to be economically empowered in order to become self-reliant. This could start through small initiatives like gardening and rearing chicken.

*In fact these mothers should be encouraged right at the age of 12 to start small projects like keeping chicken, growing vegetables like beans. This would earn the income to cope with the situation. ... it is lack of money that encourages these adolescent girls to go to men. It is a major problem because they cannot afford to buy petroleum jellies, buy cloths. (KI Wakiso HC IV).*

*Adolescent mothers can make mats, baskets and knitting of table clothes, which doesn't require bulks of money. (KI Kakiri HC III)*

Also some pregnant adolescents try to rear chicken and other domestic animals which can be sold and earn money to meet those needs. ... Some keep chicken, which lay eggs that can be sold to buy soap (FGD (Married pregnant adolescents, Wakiso HC).

#### Commercial sex work

It also emerged that adolescents got involved in commercial sex work to earn money for survival as well as to take care of their babies.

*We do not have jobs ... have no income for survival and looking after our kids. ... that is why most girls have ended up becoming pregnant early or turning out as commercial sex workers in Kampala (FGD Married adolescents, Buwambo HC IV).*

The narratives depict how adolescents coped with the situations that they faced. Adolescents experienced many stressors, social and biological, during pregnancy and early motherhood such as pregnancy ailments, nutritional concerns and lack of disposable income. Some of the adolescents were actively coping with their situations and were optimistic about their own futures. The narrative type was labeled as 'dealing with the problems' which is based on seven condensed interviews and moulded, with additions from eight interviews and represented by Allen (pseudonym). She is a 16-year-old orphan who had just completed her senior two (2<sup>nd</sup> year in high school) when she discovered that she had become pregnant with a taxi driver who later became her husband. She also has a network of helpful relatives (paper III).

#### Allen's Narrative

##### *Healthcare and social support*

In the first interview, Allen describes how she deals with major stressors during her pregnancy.

I had fever right from the first month of pregnancy up to when I was 3 months pregnant. In addition, I experienced a problem of vomiting all the time from the second month onwards. I came here [government health center] for treatment, was given tablets but later was referred to Mulago hospital [national referral hospital]. Up to now, the problem [vomiting] has failed to stop. I also experienced fever, pain in most parts of my body, the abdomen, back and leg pains....I had pain in the stomach; it was as if I was going to have a miscarriage. I used traditional medicine but the situation did not change. It was not until I went for treatment at the health unit that the fever was diagnosed and treated. The good thing is that in all this I had the support of my husband.

Seeking social support from immediate family members such as aunties, uncles, sisters, parents, and spouse was an important way to cope for most married adolescents in this group. Allen remembers that social support was in form of materials, food and finance.

My aunts have been so helpful. They sometimes buy food for me to eat. For the malaria I had, I came for treatment here [government HU] but my aunt is the one who gave me transport money. My aunt played a significant role. First, when I came from Kampala to her place, she accepted to stay with me. She also assisted me in several ways like giving me food and money. Although she is also a poor woman she gives me some little money sometimes. She has been advising me on which traditional medicines to use since I am about to deliver and sometimes she buy *Emumbwa* for me.

In most cases the partners or the partners' family extended their support and viewed the adolescent as part of their extended family. Allen recounted her experiences after delivery:

My husband is the person that has helped me most through the problems I have so far had. He gave me money to buy tablets for the flu and cough. He also makes sure I wake up very early in the morning to take a cold herbal bath, which helps me gain some energy. In addition, he fetches water for me from the well, and assists with doing the heavy work at home. He also brought for me coffee leaves which I used as medicine to stop vomiting that time when I was still pregnant. My partner is even the one who forces me to eat food whenever I have poor appetite. He did not deny responsibility for this pregnancy. Most men nowadays deny responsibility for pregnancy and girls face problem alone.

##### *Earning a living*

Some respondents took up personal initiatives to ameliorate their financial resources. They were willing to take up casual jobs to earn income. The problem was that they were weak and employers were reluctant to employ pregnant women. Allen narrates the different initiatives she took to earn some money.

I look for people who want their clothes washed and I wash them to earn a living. ... When I was pregnant, I

tried to crash stones (aggregates for building). During five days, I filled one Dyna (type of small lorry) for which I earned 20,000Ush (12USD). But I tell you my fingers got hurt, bruised and damaged. Three fingers lost the nails; one of the fingers got an infection. Therefore, it is a difficult job that I can't afford to do now with this young baby. Currently I am trying to look for money by doing some farming. If I get good yield, then I can buy clothes for my baby, a dress for myself, and the extra food we will eat. Recently I was doing petty trade here, selling tomatoes and matoke (plantains), but I stopped.

#### *Planning the future*

When we interviewed Allen the third time (i.e. five months after delivery), she had many ideas about her future. She did not want to get pregnant soon, and desired employment to earn a living. She was ambivalent in the sense that she wanted to make her marriage official and be in school at the same time.

I have initiated family planning on my own. I do not want to have another baby soon. I got family planning services in form of an injection. I got it from a private clinic in this area. I independently decided to have the services without informing the man. I know he would not have allowed me that I know for sure. I think now you can believe me that I have tried to initiate a number of things on my own!

As for the future, I would like to get employment so that I look after my baby well. In addition, I would be happy if I got properly married with a ring on my finger at least in a year's time. Given chance, I would have loved to get back to school. That would guarantee my future.

### 4.3.2 Avoidance and shame (III)

On the other hand, another category of adolescents had strong feelings of shame and embarrassment at their condition and avoided public places. Many suffered from severe lack of food, uncertainty about the future and even worries about death. They needed money for buying food and appropriate clothing for maternity and their newborn babies but had no money and did not know where to get it.

This narrative type, labeled 'avoidance and shame' and represented here by *Evelyn* (pseudonym), is constructed based on six condensed interviews and molded with additions from seven other interviews. Most of these interviewees came from families with separated or dead parents and were not living with the man who made them pregnant.

The parents of Evelyn, a 15-year-old unmarried pregnant adolescent, separated many years back. When her father lost his job, she stayed with her uncle. When she had completed primary school, she could not find school fees to continue with her education and this caused her to be on her own. She got pregnant as a result of being on her own. The man responsible for this pregnancy used to work as a casual labourer near Evelyn's home. Evelyn said that she had sex only three times with the same partner and had gotten pregnant. She had known him for a very short time.

#### Evelyn's Narrative

##### *'My dress is too tight'*

In our first interview with Evelyn it was her first time to seek ANC (at 6 months) because she felt embarrassed by her tight dress. She described how people ridiculed and pointed fingers at her and how she tried to avoid public areas.

**Evelyn:** I lack maternity dress ...I mean big sized dresses, but because I do not have the money to buy these free size dresses, I keep putting on tight dresses, which are not comfortable. ... this is something I need very, very urgently. From the time my pregnancy could be observed I have been avoiding the public. I do not want people to see me. [She keeps silent, faces down at the side of the table and bursts into tears]. I asked the man who made me pregnant but he said he did not have money to buy the maternity dress. **Int:** Have you tried other means to make sure that you actually buy it? **Evelyn:** I have no other means of getting money.

Appropriate clothing was seen as an urgent need by respondents like Evelyn in the face of their fear of social stigma. This even affected their health seeking behaviour. Evelyn narrates further

Last Wednesday, I had severe abdominal pain but did not go for treatment. All the dresses shame me whenever I wear them. The dresses I have are so tight now especially around my waist and stomach parts – ... people say 'look at her, such tight dresses will harm the child in the womb'. People laugh at me

whenever I pass by them. These days I feel stigmatized and stressed. God, why did you create me on this earth?

*'In silence and in tears'*

Soon after delivery, Evelyn faced more difficulties when she developed a breast problem. She also felt neglected by the father of her child. In our second interview, she narrated to us how she felt helpless nearly all the time. Her coping response was to remain 'in silence and cry':

Just a few weeks after delivery, I got a big problem with my breast. One got swollen I would feel a hard object inside. Later pus started coming out and I would feel a lot of pain. My mother decided to take me to a private clinic for treatment where I was given five injections and tablets. Although I got some relief, the pain is still there ...I felt so bad and cried most of the time. I regret that maybe if I had a husband he would be with me all the time, provide the many things I am lacking and maybe cheer me up.

When we visited Evelyn for the third (last) interview, she described how difficult the entire pregnancy period had been for her. She had tried to get support from her boyfriend's family but was met in an abusive and aggressive way:

It has not been easy for me at all. I recall when I was pregnant my boyfriend could not live with me since he was working in a district faraway from here. Before he left he had introduced me to his family and relatives who would help me in case I needed help. One night I got severe abdominal pain and since I was to deliver, I needed to buy the hospital requirements. On reaching there, my mother-in law abused me badly. She said, "You will not get anything from here. Why did you become pregnant? Couldn't you have aborted! Why are you transferring your problems to me?" I had to go back empty handed. Towards delivery, I decided to try my brother-in-law who was close to my boyfriend. Unfortunately, on arrival he was not at home. I only found his wife who paid no attention to my problem. She also abused me and called me all sorts of abusive names. She even said: 'the money we have is only for our own children. Who are you to come and disturb us! Go away in your stupidity'. I was speechless and had to go away in tears.

She had also continued to seek support from the father of the baby, but to no avail:

One day I decided to seek assistance from the father of my child. His response was 'it serves you right' because he was imprisoned for having committed a crime by making me pregnant as a minor. I was so disappointed and my reaction was just silence. I tell you I was in shock. He has not given me any form of assistance. After some time, he was released from prison. He came to see me and the baby at my mother's place and left me with 5000Ush (equivalent to 3USD). He told me that the money would be enough. From that time, the man (father of my baby) has never come back again to see me. One time I went to see him and on meeting him he told me to leave him alone because he already married another woman. I gave up, could not say any word, my life was shattered. I then knew I would have to face the difficult life of a single mother.

Evelyn saw no ways to improve her situation but to keep silent, hoping that the situation would improve by itself.

## 5 DISCUSSIONS

This thesis explores adolescent motherhood in Uganda, the dilemmas faced by adolescents, health-seeking behaviour and coping responses both qualitatively and quantitatively. This section covers the methodological and results discussion. Contextualization of what it is like to be an adolescent mother, gender, HSB and coping responses during pregnancy and early motherhood are included.

### 5.1 METHODOLOGICAL CONSIDERATIONS

#### 5.1.1 Rigor and trustworthiness

##### Rigor

All research work must be open to critique and evaluation. This is essential when one wants to apply the findings. Rigor is the means by which one demonstrates integrity and competence in the research process [137]. Without rigor there is a danger that research may become worthless in its contribution to knowledge. We established rigor through triangulation, observing reflexivity, peer debriefing and member checking. We also practiced standard conduct such as training, supervision, tape-recording, transcription, etc in the qualitative studies.

*Triangulation:* This concept refers to a research technique in which a researcher compares the findings of different methods and the perspectives of different people or groups to help produce more comprehensive findings [138]. Triangulation is based on the premise that no single method ever adequately solves the problem of rival explanations. Because each method reveals different aspects of empirical reality, multiple methods of data collection and analysis are critical [137]. Triangulation takes several forms but the common ones are *methods triangulation*, *triangulation of data sources* and *investigator triangulation* [139, 140]. In our case we used three types of triangulation. In terms of methods triangulation, FGD, KIIs and in-depth interviews were used in studies **I**, **II** and **III**. We qualitatively explored the problems/situations of adolescents (paper **I**) and their health-seeking behaviour (paper **II**) and then quantified the health-seeking practices (paper **IV**). Taking a global look at the entire thesis, methodologically, we enriched our study by following pregnant adolescents for nine months with in-depth open-ended interviews. This component mainly focused on the coping responses during pregnancy and early motherhood. Data was collected from multiple sources/groups of people thus triangulation of data sources. For example, we had pregnant adolescents, adolescent mothers with infants, health workers, traditional birth attendants and community opinion leaders included in the first study (Paper **I**). In the second study we had group discussions with married pregnant adolescents, unmarried pregnant adolescents, and mixed groups (married and unmarried) of adolescent mothers seeking health services; through these, we learnt about these adolescents' health-seeking behaviour (paper **II**). In the prospective study we followed two groups of pregnant adolescents, married and unmarried (paper **III**). Lastly, in the fourth study, we compared two groups, adolescents and adult mothers (paper **IV**). In terms of investigator triangulation co-authors included one obstetrician gynecologist, specialized in adolescent reproductive health (FM), a specialist midwife in Sexual and Reproductive Health for young people (EF), two Sociologists (AJ, EK), a statistician (NT) and a public health specialist (LA). This synergy of investigators enhanced the needed science of this research.

*Reflexivity.* This refers to a research technique to enhance researcher's recognition of their own influence on research such as gender, ethnic background, social status and professional background. There is, therefore, a need to take the subjective values of researchers' feelings and attitudes into consideration [139]. In this thesis, the team was cautious of the possible bias that could be introduced and this was solved by triangulating investigators. In addition, research

assistants were young graduate females who acted as ‘gate keepers’ in the Kiganda culture. Through training, all research assistants and investigators were made aware of the need for reflexivity (social interaction, culturally accepted dress, etc) throughout the entire study.

*Peer debriefing and member checking.* During data collection and analysis, we debriefed our peers (researchers and professional colleagues) by sharing what was emerging from the study. The feedback was integrated in the subsequent studies. Member checking refers to a process of confirming or refuting meaning by reflecting it back to the participants to ensure that what was understood was credible [138, 141]. In study three, we gave an opportunity to the adolescents to check information in subsequent interviews (paper **II**). This enhanced rigor in the thesis.

Lastly we applied standard techniques of data collection while collecting both qualitative and quantitative data. Careful selection of research assistants with experience and training was done. All tools were translated into the local language, Luganda (paper **I-IV**). Tape-recording was done during FGDs and qualitative interviews, and audio tapes were transcribed (papers **I, II** and **III**). This entire process was closely supervised by LA.

### **Trustworthiness**

Procedures used to generate research findings must be trustworthy as much as possible. The introduction of Lincoln and Guba’s idea of trustworthiness provided an opportunity for naturalistic inquiries to explore new ways of expressing validity, reliability and generalisability outside the linguistic confines of a rationalistic paradigm [142]. In qualitative research, the concepts credibility, dependability, transferability and confirmability have been used to describe various aspects of trustworthiness [128, 142]. *Credibility* (comparable with internal validity) deals with the focus of the research. It refers to confidence in how well the data and the process of analysis addresses the intended focus. In this thesis, our respondents were appropriately and carefully selected. They were adolescents (married, not married, seeking a service, with infants). We performed FGDs, KI interviews and in-depth interviews, all of which were appropriate methods to investigate the different research questions (paper **I-III**). Credibility was also demonstrated through strategies like member checks, peer debriefing and triangulation. *Dependability* (comparable with reliability) seeks to take into account instability and phenomenal factors. This was achieved by having senior scientists (Swedish and Ugandan academic supervisors) who were not directly involved in the data collection meet with the principal investigator. In addition, there was continuous open dialogue with supervisors via e-mail throughout the research period (papers **I-IV**). *Transferability* (comparable to external validity) refers to the extent to which the findings of a qualitative research study can be transferred to other contexts/settings or groups, i.e. generalisability of inquiry. From the qualitative perspective, transferability is the responsibility of the one doing the ‘generalizing’. Transferability is enhanced when thorough description of research context and assumptions are made [140]. Characteristics of our participants, data collection methods and analysis are described in-detail. Therefore, our results can be transferred to a setting similar to our study district or study population (paper **I-III**). *Confirmability* comparable to objectivity/neutrality, is concerned with establishing that the data and interpretation of the findings are not fragments of the inquirers’ imaginations but rather clearly derived from the data. In our case, we read through the transcripts several times and, thereafter, derived codes, categories and themes from the data. We tried to stay as close to the text as possible and have tried to include ‘thick descriptions’ reflecting the social reality. We used verbatim quotes to vividly give an opportunity to the reader to make their own judgment about the context (paper **I, II**). In study three, LA read transcripts several times for content and coherence. Information-rich transcripts were condensed into narrative types (paper **III**). These processes were rigorous and, therefore, established trustworthiness.

### **5.1.2 Validity and Reliability**

In quantitative research (IV) validity deals with whether the means of measurement are accurate and whether they actually measure what they are intending to. It is the ‘best available approximation of the truth or falsity of the given inference, proposition or conclusion’ [143]. Reliability is concerned with whether the results are replicable. It is the consistency of the measurement or the degree to which an instrument measures the same way each time it is used under the same condition with the same subjects [144]. Our quantitative results on health seeking practices are valid. In a pilot study LA did before the main data collection, it was established that the results fitted the expected content. The results accurately represent the total population of adolescent mothers in Wakiso districts. A combination of multi-stage cluster sampling and simple random sampling techniques were used. Therefore, these results can be reproduced under similar methodology using the same instrument (paper IV).

### **5.1.3 The use of models**

The models adopted from Koeger (1983) and Moos (2002) were valuable in building the conceptual framework and were also utilized in analyzing adolescent HSB and coping responses during pregnancy and early motherhood, respectively. Koeger’s model, which looks at perceived morbidity (in our case pregnancy and related ailments) groups variables into three categories, namely characteristics of the subject, the disorder, and the services (independent). These variables affect the type of health care chosen, traditional or biomedical healer, drug seller and/or self- or no-treatment (dependent). The recognition and significance attached to symptoms, degree of difficulty in seeking care and, the belief in the healthcare system determines one’s choice and utilization of services. Our results from study two show that variables such as access (physical, financial), gender dynamics, and cultural practices determined adolescents’ choice of healthcare (biomedical or traditional) (paper II).

In order to understand coping responses, Moos’ model was utilized. This model is an integrated framework for expanding stress and coping theory to include contextual and socialization factors related to adolescent health and well-being. Cognitive appraisal and coping skills of individuals are shaped by the relationships among the environmental system, the personal system and transitory conditions. The outcome of the inter-relationships is the health and well-being of the adolescent. This reflects back to each of the other components of the model. To understand the psychosocial adaptations that adolescents make, we must consider family climate, social resources, the coping responses of the approach, and avoidance [107, 145]. Adolescents are at greater risk of problem behaviours when faced with acute and or chronic stressors but may have fewer medical problems. However, they acquire more self-confidence when they have increased resources and coping skills characterized by approach (problem-focused coping) rather than avoidance [107]. Our study indicated that adolescents who were in partnership, had social support, and initiated income generating activities displayed problem-focused coping (paper III).

### **5.1.4 Limitations**

There are some limitations in this thesis. First, whereas we wished to have had some FGDs with participants who had delivered outside of health centers (home, TBAs), it was not feasible because of the geographic distance and logistics of transporting such participants and their newborns to a discussion venue. Our participants in study II were, therefore recruited from clinic settings. However, our earlier study explored the experiences of adolescent mothers with community- and clinic-perspectives (paper I). Furthermore, it would have been most desirable to interview all adolescents three times in study III, however it was not possible because some participants changed residence, moving to distant districts. Initially, we also intended to recruit pregnant adolescents not seeking a service (ANC) but this became impossible because potential participants became worried about the legal implications associated with teenage pregnancy among

school-going girls. We, therefore, had to recruit participants from the health centers only (paper **III**). One could argue that these adolescents were perhaps better off than those who did not dare come to seek healthcare. This thesis does not capture the fathers' perspective of adolescent motherhood. The reasons were legal and logistical in nature.

## **5.2 RESULTS DISCUSSION**

### **5.2.1 What is it to be an adolescent mother?**

Adolescent pregnancy and motherhood culminates in intricate medical and social issues. The psychological and social consequences of adolescent pregnancy depend on acceptance from the family and society at-large. In study **I**, pregnant adolescents faced 'family and community problems' leading to rejection, violence, stigma and despair. Adolescents were sent away from home and, at times, also beaten by parents (paper **I**). One cultural explanation is that when a girl gets pregnant, she brings shame to the family. Society blames parents for the poor upbringing of their daughters. It is also an indication that she is already sexually active and should leave home as sexual activity should be reserved until marriage. Marriages are arranged by parents (without the involvement of the girls) in Buganda tradition. A study by Kaye et al (2002) showed that being a pregnant adolescent or pregnant for the first time was significantly associated with domestic violence [146]. In many cultures, unmarried pregnant adolescents carry feelings of shame, guilt and discrimination. This can make The pregnant adolescent hide her condition from her family and society, due to fear of rejection and lack of understanding [147]. Results from South Africa show that social stigma as a result of pregnancy among adolescents may lead to abortion [148]. Attempts to induce abortions are also reported in our study. The main reasons given for attempts to induce abortion included denial of responsibility for the pregnancy on the part of the father of the baby as well as stigma associated with pregnancy (paper **I**). A similar situation was found in Swaziland, where adolescent mothers and their neonates were abandoned by the father [101]. In the Ugandan context, pregnancies were perhaps denied due to fears of punishment of defilement. Girls below 18 years are considered minors. Partners of girls below 18 years can be convicted of defilement and even serve a death sentence. As a result, most families end up settling the cases of adolescent pregnancies outside of court or by migrating to other villages where they cannot be traced. This might be an important reason that men/boys have often denied responsibility. Furthermore, study results from Zambia show that the decision to abort was determined primarily by the reaction of the boyfriend and his unwillingness to accept paternity and the associated financial implications [149]. In Uganda, 25-30 percent of maternal deaths can be attributed to abortion and most of these deaths occur among adolescents [150].

Papers (**III**, **IV**) report that adolescents experienced several problems including rejection and violence during pregnancy. The likely reason for rejection is that partners shun responsibility for parenthood. Partners may feel that they do not have the capacity to take on family responsibilities (paper **IV**). Previous studies confirm that men/boys deny impregnating women, especially adolescents, because they are simply not ready to take on the responsibility of becoming fathers and caring for families [151]. Furthermore, women, especially adolescent mothers, were sent away from home and expelled from school. This could cause reactions of shock from parents whose daughters are perceived to have wasted scarce resources. In central Uganda, it is widely believed that unmarried pregnant girls should not stay in the same house as their parents, and, culturally, teenage pregnancy brings shame to the family. Women in violent relationships are often unable to make sexual and reproductive health choices in terms of healthcare-seeking and this exposes them to many health risks such as low birth weight and induced abortions [152, 153]. Sadly, most women remain silent about violence inflicted an intimate partner and do not seek help [154, 155]. This also has socio-psychological implications for health-seeking for young pregnant mothers. This myriad of challenges for pregnancy adolescents affected HSB for maternal and child health services.



### 5.2.2 Gender issues

The influence of gender dynamics within the sexual relationships of men and women on reproductive issues is becoming increasingly recognized in the literature. A study in Wakiso district revealed that in the Baganda culture, when a woman experiences reproductive health problems, it is a female in-law, often a sister-in-law who will accompany the woman to the hospital. The woman's husband does not have to accompany her unless specifically requested by the doctors for joint treatment as in the case of syphilis treatment [156]. These findings demonstrate the subordination and vulnerability of pregnant adolescent women and how this affects their psychological well-being, healthcare-seeking and coping responses. It is thus important to discuss relational problems in the family and community faced by adolescent mothers, as well as their HSB and coping responses.

Gender and relational problems featured in our studies (study **I**, **II** and **III**). Results showed that there was a lack of understanding and compassion by the men responsible for the pregnancy (papers **I** and **III**). This problematizes the situation for adolescents in that they 'feel lost' and face difficulties in coping with the situation of pregnancy. In such circumstances, girls might be prone to committing suicide or performing unsafe abortions [157]. Interventions focusing on individual and/or group counselling as well as adolescent crisis centres would be good interventions to ameliorate some of the problems that pregnant adolescents face. Food and other basic needs such as infant clothing are sometimes not available due to lack of economic resources. Gainful employment for adolescents is important and would alleviate poverty and improve health-seeking behaviour. Study results indicate that men who are responsible for the pregnancies dominated the girls and denied them employment opportunities (papers **I** and **III**). Pregnancy thus seems to be used as a tool for dominating adolescent women in both social and economic respects. Adolescent mothers' socioeconomic status adversely affects their nutritional status as well as that of their infants [158]. It is, therefore, important for society to be sensitized on pregnancy-related complications arising from inadequate or inappropriate food intake.

Results from study **II** indicated that the socioeconomic position of women in society was low, particularly that of adolescent mothers, and that this affected the decision-making process. There seemed to be gender imbalance in decision-making since men/boys had absolute power in the household, which affected women's choice of healthcare. This has also been observed in South Africa where men dominated the decision-making processes, which affected adolescent and child health [159].

### 5.2.3 Health-seeking behaviour

Studies **I**, **II** and **IV** present important aspects of HSB namely attitude of HW, social inhibitions, access to financial resources, cultural and traditional norms, and the healthcare system. Attitudes of HW are important as they determine whether services are attractive to clients or not [73]. Study one showed that HWs did not respond adequately to adolescent maternal needs. On the contrary, HWs were said to be harsh, abusive and blamed adolescents for getting pregnant. Adolescents avoided health services because of negative staff attitudes (paper **I**). Mngadi, in her doctoral thesis, also observed that one-quarter of adolescents said that midwives were impersonal towards them and did not greet them or orient them to the system [101]. In Uganda, Mbonye demonstrated that implementation of adolescent-friendly services improved access to and use of services among adolescents leading to reduced morbidity from sexually transmitted infections and unwanted pregnancies [65]. It is often assumed that the health problems of female adolescents can be addressed by general improvements in women's health services. However, the level of care required by adolescents who deliver their first child is considerably greater and different from that required by adult women. Moreover, many women's health services are

hostile to young women who become pregnant out-of-wedlock and may even deny them treatment [73, 160].

Study two demonstrates the dilemma of becoming an adolescent mother. Adolescent girls felt too young to become mothers and lacked supportive relationships. Feelings of guilt, shame and blame hindered them from seeking healthcare (paper **II**). Privacy and confidentiality, especially for adolescents, is an important issue in health systems as shown in other studies [149, 161, 162]. TBAs were seen as offering both the privacy and confidentiality that adolescents required, and this appeared to attract adolescents to seek care at TBAs (paper **II**). Access to transport was an important factor for pregnant adolescents to seek healthcare. The most available means of transport were bicycles and motorcycles (paper **I, IV**). This mode of transport was viewed as inappropriate for pregnant women and even worse for a woman in labor. Although this mode of transport appears to be cheap (0.5 - 4 US\$), it was not affordable for most adolescents since they do not have any income (paper **II**). This made it much more convenient for the adolescents to seek care at the TBAs' homes for pregnancy ailments and delivery or simply to stay at home. Mode of transport has been documented elsewhere as a key determinant to health-seeking for maternal services, especially in low income countries [55]. Ambulance services at community and health facilities could avert the high maternal morbidity and mortality through quick referral and timely medical intervention in Uganda [163, 164].

Cultural practices and beliefs surrounding birth affect HSB. Cultural prescriptions in relation to placenta rites 'repelled' adolescents from seeking delivery services at the health units but acted as an attraction to visit TBAs and herbalists. The 'don't care attitude' and health workers' tendency to be rude to clients was discomfoting to the adolescents (paper **II**). A sense of safety, security and empathy are important factors for health seeking. The presence of a functional referral system was viewed as panacea in case complications occurred during pregnancy and delivery. Pregnant adolescents visited health units to obtain an ANC card (paper **II**). This card acted as a security for the young mothers in the event that one might visit the unit, so that she would be better received by health staff, especially in case of emergency. This is probably the reason why first ANC attendance is over 90 percent but subsequently there is low turn-out including attendance for delivery [21].

Indeed, our quantitative study (**IV**) revealed that the majority of mothers attended ANC at least once. This proportion (over 90%) is comparable to the one observed in the 2006 UDHS [21]. However, the majority initiated ANC late, i.e. after three months of pregnancy. According to WHO guidelines, which are adopted by Uganda, a pregnant woman should attend ANC at least once before 16 weeks of gestation [55, 165]. Although over 60 percent attended ANC four times and above (paper **IV**), still many women, especially adolescents do not meet the minimum standard of four times. Antenatal care attendance is related to place of childbirth. According to the 2006 UDHS, women who made four or more antenatal care visits were almost four times more likely to give birth in a health facility than women who did not attend ANC [21]. More recently, the WHO suggested that goal-oriented ANC may achieve similar health outcomes as the more rigorous ANC schedule [165, 166]. Reasons that adolescent mothers attend ANC fewer times than adult women might include lack of operational logistics such as money for transport, low education level, socioeconomic situation and gender dynamics in their homes and families, as suggested in literature [49, 167, 168]. Socially, not having a maternity dress stigmatizes and makes adolescents stay away from public places. As long as effective strategies to increase skilled birth attendance at birth remain unmet, along with a lack of emergency obstetric care and few institutional deliveries, the scandal of maternal morbidity and mortality in low income countries will remain high, particularly among adolescent mothers.

Study four further indicated that despite the challenges observed, the majority of mothers were assisted by trained health personnel during labour. Only ten percent gave birth at home or at the TBAs' homes (paper **IV**) compared to the 2006 UDHS where 58 percent of mothers were said to deliver at home [21]. The possible explanation is the extensive social network in the community, especially towards the onset of labour couple with the fact that significant others do sometimes support the adolescents. The problem of home deliveries becomes illuminated when the need for emergence obstetric care arises. Other studies also suggest that inappropriate choice of place of delivery is associated with negative maternal and neonatal outcomes [169, 170]. Child birth in a health facility attended to by skilled attendants is associated with lower rates of maternal and neonatal mortality and morbidity than home births [171, 172]. Vaccination practices for children are considered a good proxy indicator for HSB in early motherhood [173]. Our study **IV** showed that adolescent mothers were significantly less likely to report possession of a vaccination card for childhood diseases. We also observed that adolescent mothers were significantly less likely to vaccinate their children with the second and third doses of Poliomyelitis and Diphtheria (paper **IV**). This might be due to lack of money for transport. Similar to our study, recent research on adolescents' use of maternal and child health services in low income countries including Uganda showed that infants born to adolescents were less likely to receive vaccinations than infants born to adult mothers [48].

#### **5.2.4 Coping responses**

In general, adolescents in a union tended to have fewer stressors and coped positively through seeking healthcare, social support, striving to earn a living, and planning for the future (paper **III**). This trend is also seen in the literature where partner support correlates positively with the psychological well-being of the adolescent mother and her children [174]. Supportive social relationships help young women to cope with the stress of adolescent motherhood. During pregnancy, Allen (pseudonym) in study **III** narrates that she faced stressors such as repeated fevers, pains, and vomiting but she was able to seek healthcare, first from traditional healers and when the condition persisted, from biomedical care providers. Seeking the services of traditional healers is a common practice in rural settings, especially where access to health facilities is limited by distance and high costs are associated with care and transport [175, 176]. Being in a union appears to differentiate the availability of social support compared to not being in a union as Allen reflected '...the good-thing is that in all this, I had the support of my husband'. The social support mechanism received from significant others (partner, partner's family, parents and other family members) for the married adolescents enhanced problem-focused coping. A possible explanation is the self-confidence and self-esteem created by marriage, which facilitates the use of available resources within one's environment. The ability to utilise environmental systems (such as social climate) and personal systems (such as social competencies, cognitive abilities and confidence) as described by Moos 2002 was enhanced [107]. The provision of support in the form of finance, shelter, food and counselling that we found is also mentioned in other studies [99, 177, 178].

Evelyn's (pseudonym) narrative includes many elements depicting regret for her early motherhood. The feeling of shame apparent in her narrative made her avoid visiting peers and relatives (paper **III**). Likewise in their study, Wiemann et al (2006) showed that stigma led to low self-esteem. It inhibited socialization and social interaction and gave a feeling of isolation [179] resulting in misery and stress among adolescents mothers. The sense of stigma and shame also limited Evelyn's possibility to seek healthcare including ANC. Inappropriate dressing embarrassed adolescents in public and, thereby, discouraged them from seeking health services. Not attending ANC could negatively affect the well-being of the mother as well as that of the baby as some complications may remain undetected [180-183].

Evelyn's narrative is characteristic of emotion-focused coping and she mostly copes passively. We commonly see phrases like 'my reaction was just silence', 'I gave-up', 'my life is shattered', and 'I cried' in her narratives. Evelyn's story indicates that if she had been married, her life would have probably been better. In the African sense, marriage is important and has obvious advantages related to positive coping styles. One obtains a sense of belonging to a bigger social network of relatives and friends who, in the long-run, feel obliged to offer assistance when possible.

Out of 24 adolescents, three lost their children shortly after birth. This could be an indication that neonatal mortality is indeed high in this group. It is, therefore, important to explore support systems that give special attention to bereaved couples, especially when an adolescent is involved. In the cases of many adolescents, this may be the very first time that they experience a death of someone close to them. In the narrative case 'violence and grief' Fatima (pseudonym) experienced domestic violence from her partner. Domestic violence in pregnancy is associated with maternal morbidity and poor pregnancy outcomes. Kaye et al (2006) has observed that children born to mothers who experienced domestic violence during pregnancy were more likely to deliver underweight babies when they became mothers [152]. Domestic violence is, indeed, high, especially for less-educated adolescents, whose pregnancy is often unintended. Fatima experienced the double tragedy of violence and child loss. She had had no choice but to deliver at the TBAs home because she failed to raise transport money to deliver at a health facility. Fatima's narrative is characterized by grief reactions after the loss of her child, which had occurred only very shortly before the interview. The death of a child is one of the most difficult losses a parent can experience, perhaps more so if it is an adolescent mother.

## 6 CONCLUSIONS

The key conclusions from the thesis are:

- Pregnant adolescents lack basic needs like shelter, food and security. They face relational problems with their partners, families, parents and community.
- Adolescent pregnancy brings shame to the family and, culturally, pregnant adolescents do not stay in the same house with their parents. This explains why pregnant adolescents face violence from parents and are sent away from home.
- Pregnancies were denied due to fears of punishment of defilement and the inability of partners to take responsibility.
- In search for safety and empathy, pregnant adolescents sought healthcare in both the modern and the traditional health sectors.
- Adolescent mothers felt exposed, powerless, and in-dilemma. They were ashamed to meet their peers and feared to visit health facilities.
- Adolescent mothers were disempowered in decision-making because of their pregnancy state. Partners and family members dominated the decision-making process, including indicating where the adolescent should seek healthcare.
- The key factors influencing health-seeking behaviour included physical and economic access, the dilemma of becoming an adolescent mother, and cultural practices and beliefs.
- Married adolescents or adolescents in committed relationships seemed to cope better (problem-focused) with stressors during pregnancy and early motherhood than unmarried adolescents.
- Adolescents showed inadequate health-seeking behaviour for themselves and their children and experienced more community stigmatization and violence as compared to adult mothers. This suggests bigger needs for social support for adolescent mothers.

## 7 IMPLICATIONS FOR POLICY AND PRACTICE

A number of implications are listed below. They are at both macro and micro levels:

- The results call for more sensitization of community leaders and schools on adolescent sexual and reproductive health issues.
- Adolescent mothers are very vulnerable as they are sent away from schools, sent away from home, often violently, and pregnancies are denied by partners at a time when support is needed most. There is, therefore, a great need to introduce programs to sensitize parents and promote dialogue with parents about adolescent pregnancy and pregnancy-related vulnerabilities
- Adolescent-friendly services need to be established and/or strengthened, and midwives and other health providers need to be trained to meet the needs of their young clients without judgmental attitudes and with compassion and understanding.
- Infrastructure, such as roads, need to be improved to ease access to health facilities for women, especially adolescents. This could be done through District Health Officers (DHO) lobbying the districts and sub-county councils for more allocated funds. Creative partnerships with research and infrastructure institutions could also be explored.
- It is recommended that interventions targeting pregnant adolescents and young mothers should pay close attention to the specific social and family situation of the individual. Besides, it ought to be observed that many adolescents may never come to health clinics due to stigma, shame, poverty, etc. Adolescents ought to be supported to enable them to seek healthcare. Health professionals need to be trained to identify adolescents (mostly unmarried) under difficult and stressful situations and to help them to cope with these difficulties. There is a need to create an environment of support, empathy, and trust so that adolescents feel cared for.
- Our findings serve to inform the development and provision of services for bereaved parents, especially adolescent mothers who lose their babies. Ability to meet parental needs during the early phase of grief may facilitate a healthier passage through the later phases of grief.
- There is a need to sensitize the community on issues of gender equality. Men and women should ideally see each other as equal partners despite their biological differences.
- Because of gender power imbalances in the community, there is an urgent need for financial and psychosocial support for adolescent mothers and the need to sensitize communities on the rights of adolescent mothers. Programs addressing gender inequality within the cultural context are crucial in rural districts.
- Further research Further research is needed especially taking into account fathers' perspectives on adolescent motherhood.
- Besides, there is need to prospectively following-up adolescents who deliver in different areas, i.e. public health units, private health facilities, with TBAs and at-home. Understanding the interplay of the factors responsible would help to steer interventions.

- A study is needed to analyse the law of defilement and how it impedes the sense of responsibility of the partners. Such a study should reflect on implications of the law in relation to adolescent mothers' vulnerability.

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